ABSTRACT OF TWO

Clinical Lectures

ON

SOME OBSERVATIONS ON THE TREATMENT OF ENTERIC FEVER.

Delivered at St. George's Hospital on Feb. 24th and March 2nd, 1896.

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GENTLEMEN,—We have had in the hospital during the last few months many cases of enteric fever, and, so far as my own experience goes, the epidemic has been a severe one. I think, therefore, that we may profitably occupy our time this afternoon in the consideration of the management of this disease in its various stages and in its different degrees of severity.

I like the expression management as applied to a disease such as enteric fever because it implies merely such a fit and proper arrangement both of the patient and his surroundings as is, in our experience, likely to conduce to his well-being, to save him from anxiety and fatigue both of mind and body, and to relieve him, so far as lies within our power, when any untoward symptoms or complications arise. The word treatment seems rather to suggest an onslaught on the disease by the administration of various reputed remedies for the disease itself, and it only too often means, so far as this particular fever is concerned, a dangerous activity on the part of the medical practitioner in charge of the case. Do not misunderstand me. I do not say that we should stand by and simply watch the different phases of a severe attack of enteric fever without an attempt to relieve the adverse symptoms and complications which are of such frequent occurrence in the course of this disease, but that when there is no indication for interference on our part we should be content to do nothing in the way of active treatment and should do that nothing well. In the management of a case of enteric fever the first thing to remember is that, until the bacteriologists find us (as possibly they may do in the course of time) an antitoxin for this particular fever, our chief attention must be directed to the patient rather than to his malady; that we must treat the patient and not his disease. The failure to recognise this principle makes just the difference between the good and the bad physician.

Having said so much let me remind you that in the management of enteric fever our chief guides are the particular constitution of the patient and the pathology of the disease. The chief aim to be kept in view is the maintenance of the strength of the patient from the first onset of the complaint, in order that he may have a reserve upon which he can draw in the later stages, when his nervous system has become exhausted by the effects of the poison and by the grave lesions in his bowels which render even the mildest case a serious disease. The first indication that a patient has been affected by the poison of the fever is functional derangement of the nervous system, the evidence of which is the occurrence frequently of a rigor accompanied by an indescribable feeling of depression and loss of energy, and this even in cases which subsequently run a mild course; but at the same time it is important that you should bear in mind that many a case of enteric fever begins without any such marked symptoms, and that the only departure from health may consist merely in a feeling of indisposition which is not sufficiently grave to lead him either to relinquish his ordinary occupation or to seek medical advice. There is at the present moment a child, ten years of age, now convalescent from enteric fever who was admitted into Crayle Ward about the end of the second week, and who up to the date of her admission had never been sufficiently ill to lead her parents to call in a medical man, and who during the fortnight had been following her ordinary pursuits. Fortunately for her the attack was a mild one, and although she was when she came under observation in a condition to cause much anxiety for the future there was no cause for alarm. Following upon or accompanying the depression and loss of energy come headache and pain in the back and limbs indicating the effect of the poison on the blood, and through it on the central nervous system. As time goes on other phenomena are observed: the further effects produced by the micro-organism—viz., diarrhœa and distension of the abdomen produced by flatulent accumulation in the intestine consequent upon paralysis of the muscular coat of the bowels and impairment or abolition of their peristaltic movements. Later more serious symptoms may arise, such as hæmorrhage from one or more of the ulcers, and possibly perforation of the bowel, with acute general peritonitis. Bronchitis is a very common concomitant of the fever, and in its later stages pneumonia due partly to impairment of the nervous supply to the lungs. All these different stages of the fever are accompanied by pyrexia, sometimes very severe. This, then, is a very brief epitome of the more important clinical symptoms which indicate an attack of enteric fever, and it is in regard to the mitigation of them and the support of the patient's strength that we are especially concerned in managing a person who is suffering from the disease. I propose to-day to discuss with you in what way we should endeavour to carry out that object, and I shall first of all deal with the early symptoms, those which arise at the beginning of the attack—that is, during the first few days.

Examination of a patient at this stage reveals to us probably the following facts. First, an elevation of temperature which suggests, although it does not afford positive proof of, blood contamination; if the pulse-rate is at the same time accelerated the suspicion is strengthened; and let me say at once that a patient who presents these two important symptoms should, no matter what objections he may offer on the ground that he does not feel ill, be put to bed at once and kept there. By adopting this course he is prevented from exhausting his strength in fighting against a disease which will, as it runs its course, make heavy demands upon that strength. This is the first precaution and it should be rigorously enforced. If the evidence points tolerably plainly to the probability of the case being one of enteric fever the services of a nurse should be secured. Here let me say a word or two as to the nurse. She should as a matter of course be a person who has had experience in nursing fever patients, and besides this she should possess tact in her dealings with the patient; she should be quiet and methodical in the sick room. Above all, she must not worry and disturb him by a Martha-like assiduity, and she must be free from that mischievous meddlesomeness which, as it seems to me, is nowadays one of the great faults of modern nursing. In talking over this subject not long since with a physician, as able as he is wise, the conclusion we arrived at was that this modern meddlesomeness may be sometimes almost as injurious to the patient as the brutal ignorance of Mrs. Gamp. The presence of the nurse in a sick room should be felt rather than heard, and if she is perpetually feeling the pulse and asking useless questions about his sensations at the moment she is a disturbing rather than soothing element in the case. She is there to administer to his wants, and a person with enteric fever in the early stage wants little more than to be left quiet and to have food brought to him at the proper times.

The diet in enteric fever is of paramount importance, and upon the careful selection of food in the different stages of the disease—due regard being paid to requirements and peculiarities of the patient—may depend the favourable or the fatal termination of the case. Let me recall to your memories one of the most suggestive and instructive monographs we possess on this subject—I mean the address by Sir William Jenner to the Midland Medical Society in November, 1879. Though delivered so long ago it is to-day in perfect harmony with our experience of the disease in the interval, while it is at the same time a masterly exposition of the experience of years. In this address Sir William Jenner treats more especially of the administration of food in the widely different conditions which characterise an attack of enteric fever. "Typhoid fever," he says, "cannot be cured, but more lives may be saved by the judicious treatment and more lives lost by the improper treatment of typhoid fever than of any other acute disease." The food, then, should be suitable to the requirements of the patient. One of the earliest symptoms of this fever is a dislike for food of all kinds, and especial care is required in providing such food as is least distasteful to him. In the majority of cases milk is by far the best,

and as a rule patients prefer it to anything else. Recently there has been under my observation a case of enteric fever in which milk was taken by the patient throughout the whole course almost to the exclusion of all other food without the least complaint of its being otherwise than agreeable to him, and it is a remarkable fact that during the whole of his previous life he had had a decided aversion to it. In fact, several times during his illness he expressed surprise at so remarkable an alteration in his taste. Milk, then, may be made the staple article of the patient's diet throughout the whole period of the fever and even afterwards during convalescence, provided that the milk be properly digested. In order to be sure that this is so the stools must be inspected each day. If the milk is not properly digested, or if, as is only too common, it is administered in quantities too large to be absorbed, white flakes of the undigested curd will appear in the evacuations of the bowels. Such a condition of things calls for immediate attention, seeing that the curd which is formed in the stomach when milk is taken in quantities too large to be digested by the imperfectly elaborated gastric juice acts as an excessive meal often does in a healthy but greedy person—viz., causes vomiting, and if the vomiting is allowed to continue functional derangement of the stomach ensues, and digestion may be for some time in abeyance. This is a most serious addition to the patient's troubles and detracts greatly from his chance of recovery. It is to the proper discharge of the function of the stomach that our attention must be directed in the management of this fever and the least symptom of its failure must be relieved as promptly as may be. Bear in mind that the fever in itself impairs digestion very greatly in many cases, and especial care must be taken in avoiding excess of food or anything likely to aggravate it. The capability of the stomach may be so enfeebled that it is unequal to the task of digesting even small quantities of pure milk and consequently the curd passes from the stomach through the intestines, and in its passage causes much irritation of the affected parts of the bowel. Thus a profuse diarrhœa may be set up in the earlier stages of the disease. As soon, therefore, as curds appear in the evacuations make a change in the diet, either by substituting some other food, for a time at all events, or by so treating the milk that the curdling is prevented. Peptonising preparations are very useful under these circumstances, but this treatment of the milk has this fault, that the process renders it very disagreeable to some persons' taste. Should this be so it may be diluted with water or to it may be added a little lime-water. Possibly alcohol in small quantities may stimulate the enfeebled digestion and bring about more perfect assimilation of the food. In the case of the child in Crayle Ward, in the fourth week of attack curd was noticed in considerable amount in the fæces, although the patient presented no seriously adverse symptoms. At the suggestion of my house physician, Mr. G. A. Clarkson, it was decided to give her a small quantity of brandy in the milk. The result was that the curds were no longer passed with the fæces, and their absence followed so soon after the administration of the alcohol that in all probability it was the result rather than a consequence of this addition to the food. It has been recommended by Sir William Jenner that some farinaceous food be made part of the diet in enteric fever, and in the early stages doubtless it is beneficial; but in the later stages it must be given with caution because the intestine in its inflamed condition is even more functionally deranged than the stomach itself, and the presence of unaltered or possibly decomposing food may be a source of additional irritation to the bowel. Many patients suffering from enteric fever, however, have such dislike to milk that it is impossible to employ it as an article of diet, or at all events they can only take it in small quantities. In such cases strong beef-tea carefully made or such preparations as the various meat juices which are prepared by different firms may be substituted for milk either partly or entirely, and in the case of persons who are unable to take milk it is especially important that the fluid preparations of meat should be free from fat and that home-made beef-tea, mutton, and other broths should be so strained that they contain no fibres of the meat or other solid particles. In preparing beef-tea, &c., for a patient with enteric fever it is well, as Sir William Jenner directs, "to add to them some strong essence of vegetables"; but I would here add one word of caution—viz., that any such essence should be freshly made, and especially so in the warm autumn weather when this fever is so prevalent. If not perfectly fresh, such preparations of vegetables undergo acid fermentation, and then they cause irritation of the intestinal mucous membrane and possibly set up diarrhœa or greatly aggravate it if it already exists.

The next point for our consideration is the administration of drugs, and here again let me most emphatically caution you against any routine treatment of this fever by these remedies. I do not mean that drugs are not under certain conditions very properly employed, but I do wish to impress upon you the necessity for withholding them entirely in the absence of any symptoms specially indicating their administration. The reason for this is obvious. In enteric fever digestion is impaired from the commencement of the disease to its termination, and it is absolutely essential that the function of the stomach should not be in any other way interfered with or the patient's chance of recovery will be materially impaired. In the early stages, beyond headache (perhaps not very severe), pains in the back and limbs, and anorexia, there are usually no indications for active treatment by drugs; surely, then, it is better to leave them alone. There was not long since a mania, one might almost call it, for dosing patients with the various antipyretic compounds which are now so fashionable, and any patient whose temperature was over 100° F. was at once ordered one or other of those antipyretic remedies until the temperature fell. Such treatment, as it seems to me, is certainly unscientific and possibly injurious. Probably no one imagines that they have any curative action, they are in no sense of the word antitoxic, and at present we have no preparation which is antitoxic so far as this particular fever is concerned. I would therefore deprecate their use unless the temperature should range excessively high. Even so I think that before having recourse to them other means should be tried—for example, cold sponging or possibly cold baths. Further, it would be more prudent to try the effect of quinine in full doses. It has, according to the experience of some, a decided effect in lowering the temperature of the body, although it has no special property of destroying the poison produced by the bacilli. Not only are these antipyretics useless so far as any modification of the disease is concerned, save that they lower temperature, but they are many of them very depressing in their effects, and so add materially to the exhaustion of the patient. Moreover, if there be any truth in the theory which has been advanced, that the elevation of the temperature has the effect of destroying the bacilli or neutralising their products, these drugs by their action on the heat centre would be rather harmful than otherwise. Doubtless they reduce the temperature of the body and to some extent lower the pulse-rate, but even in so doing they in many cases add greatly to our difficulties in the management of the patient. In altering, as they do, the usual range of the temperature they deprive us of one of the most trustworthy symptoms, raise false hopes, and deprive us of the power of distinguishing between a severe case and a mild one; while at the same time they mask the ordinary indications of some one of those complications which are so common in this disease.

From first to last in enteric fever our attention should be chiefly directed to the action of the bowels. The practice of administering some mild saline purgative medicine, with the view of clearing the bowels of their poisonous contents, has found favour with some, and more especially in France, and in many cases doubtless no harm follows the treatment. But then in other and perhaps equally numerous instances no harm follows the opposite treatment—viz., that of leaving the bowels alone till they act of their own accord. If you adopt this course you will find that not infrequently the bowels will not act for four or five days at the beginning of the attack, and this without any untoward symptom and without any complaint of discomfort on the part of the patient. The administration of a purgative in enteric fever is always a matter for very careful consideration. It may be quite safe at the beginning of the attack and an extremely dangerous proceeding in the later stages, and it sometimes happens that one of the great difficulties is the impossibility of settling the exact day of the fever in a given case. It may not be possible, in a mild case, to say whether the disease is at the end of the first or the second week. It is for these reasons then that much caution is required in administering purgative medicines, for they may set up a diarrhœa which may be extremely difficult or, as I saw some few years ago in a case in this hospital, impossible to control.

The next point for our consideration is this, are we to order any particular drug at regular intervals in an uncomplicated case of enteric fever? and if so, what is the object in view in adopting such definite treatment? On this particular point one might almost say, *quot homines, tot sententiæ*, and if I were permitted to express my own opinion it would be this: if in a case of enteric fever there is any symptom which, judging from experience and the results of scientific experiments, in the majority of instances yields to, or is relieved by, any particular drug, then I think it is proper to prescribe it, providing that the symptom is of sufficient importance to increase the gravity of the patient's existing condition; if not I should leave him alone with a suitable diet and a good nurse. Such treatment may be called do-nothing treatment. But is this true? Are we doing nothing when we are carefully selecting proper food, regulating the times of its administration with the quality of the pulse, the range of temperature, and the condition of the nervous system as our guides; when we are apportioning the amount of stimulant in accordance with the requirements of that nervous system? I think we are doing a great deal; at all events we are doing no harm. Of the drugs which have found favour in the treatment of enteric fever those which, arguing by analogy, might be expected to exercise some neutralising or destructive effect upon the cause of the fever, or which by their antiseptic properties may be supposed to purify the contents of the intestines, may be properly employed. Such drugs are quinine, carbolic acid, salol, and perchloride of mercury. But as the result of experience I am bound to say that I have never seen any such marked improvement in any series of cases treated with these drugs as to lead me to prescribe them in a case of enteric fever of moderate severity and in which there were no symptoms calling for special treatment. Quinine I have seen given in large doses—in one instance fifty grains were given in three hours without in any way affecting the course of the disease.

Many years ago Sir Henry Pitman, when carbolic acid first came into use, treated a number of cases with it, pushing the dose until the urine acquired the usual bistre colour. In none of these cases, which some of us watched at the time with great interest, did any beneficial result follow with which the drug could be credited. Eventually Sir Henry Pitman abandoned it as useless. Perchloride of mercury has been tried by many physicians, but I do not know of any strong evidence of its superiority to other remedies of its kind. It has been, I believe, noticed in some cases that the diarrhœa has diminished after the administration of the drug, but it is not always so. You will have observed the case of a lad in King's Ward at the present time. He had a very severe attack of the fever and he was at first treated with a solution of perchloride of mercury, and under it the diarrhœa became so profuse that I thought it might be due to the drug; it was therefore discontinued. In other cases varying in severity I have given it, but without observing any definite results either good or bad. With proper management and without drugs many a case of this fever will run its course to a favourable termination. In some from the beginning there may be some discomfort due to the pyrexia and thirst. Probably an effervescing mixture of ammonia or a saline mixture—e.g., potassium citrate—given every four hours is agreeable to the patient and does not mask symptoms.

The dangers of enteric fever increase with the progress of the disease, and in all cases, even in the mildest, the third and fourth weeks are the anxious time. It is then that the worst complications—hæmorrhage and perforation—are to be feared; it is at this time that the skill of the physician and the good qualities of the nurse are so essential to the welfare of the patient; so much now depends upon the management of the case. In mild cases the third and fourth weeks may be quite as uneventful as the earlier ones, but in severe cases with high fever, great nervous depression, profuse diarrhœa with a tympanitic abdomen, a rapid dicrotous pulse, subsultus tendinum with delirium, and perhaps broncho-pneumonia, the conditions are of the utmost gravity, and it is then that much may be done for the patient by judicious management of the complications and symptoms as they arise. The control of excessive diarrhœa, upon which the nervous exhaustion and the condition of the lungs partly depends, is of the first importance and it should if possible be checked at once. The means at our disposal are astringents and opium, which may be given by the mouth or by the bowel. For reasons which have been already stated, the administration of anything but food by the stomach is to be avoided as far as may be, and in the first place, therefore, a most careful scrutiny should be made as to the possibility of any error in diet. That this may be necessary, even when more than ordinary care is bestowed upon the case, is shown by the following incident in the practice of the late Sir William Gull. He was called to see a severe case of enteric fever in consultation with the patient's ordinary medical attendant, the prominent symptom being profuse and uncontrollable diarrhœa. Gull found, after hearing the account of the case, that all the usual remedies had been tried one after the other, and yet the diarrhœa persisted. Having examined the patient he looked round the room, and on a shelf saw an array of bottles of various meat extracts and juices. Pointing to them he said to the medical attendant, "There is the cause of the diarrhœa: leave them off at once and give your patient some milk and ordinary home-made beef-tea and be guided by the result." The advice was followed, the diarrhœa was controlled, and the patient recovered. Even when the diet is most carefully adapted to the necessities there may be obstinate and exhausting diarrhœa, the result of putrefaction of the undigested portions of the food. Our object, then, is to arrest this putrefaction and the catarrhal condition of the mucous membrane which accompanies it. It is possible that it is in these cases that the perchloride of mercury produces good effect, and it may be given with scruple doses of carefully powdered animal charcoal. So efficacious has this latter remedy been in Sir William Jenner's experience that he wrote in the lecture from which I have already quoted, "This has given me such satisfactory results that I have not resorted to other remedies of its class." It is, however, often necessary to supplement such treatment by the addition of opium, but it is necessary to bear in mind that opium given by the mouth destroys the appetite, and that therefore it is better to inject it into the rectum in doses of from ten drops to half a drachm, according to the requirements of the case, and the enema may be repeated in three or four hours should diarrhœa recur. It often happens, however, that the rectum is very irritable and small motions are passed perhaps two or three times in the hour; the enemata of starch, with or without opium, usually check them at once. But at other times copious watery evacuations occur at very short intervals, and it is then that a difficulty arises so far as the enemata are concerned. Either the fluid injection is at once expelled by the irritable rectum or it is washed out, perhaps in two or three minutes, by the next watery discharge from the intestines above. A patient in this condition is in a state of extreme prostration, delirious possibly, with parched lips and a dry tongue, with sordes on his teeth. I have found great benefit from a powder (often employed when I was a student) consisting of hydrargyri cum cretâ 3 gr., pulveris ipecacuanhæ compositi ℈ ss. I have seen diarrhœa quickly subside after one such powder, while at the same time the symptoms of nervous exhaustion passed away. In restraining the diarrhœa lead and opium combined in the form of the pilulæ plumbi cum opio of the British Pharmacopœia give excellent results in some cases, and it may for a time (as short a time as possible) be found necessary to have recourse to other astringents by the mouth—e.g., pulvis cretæ aromaticus cum opio or the pulvis kino cum opio.

So far no mention of alcohol has been made as part of the treatment of enteric fever; to enter on the reasons for and against its use would occupy more time than is at our disposal. Still, it is impossible to omit all mention of it when considering the management of the later stages of the disease. In the majority of cases, occurring as they do in young persons, alcohol is not needed at first; in fact, it may with advantage be dispensed with altogether during the whole course of the fever. In severe attacks, however, when diarrhœa, tympanites, and prostration supervene in the third and fourth weeks, it may be given freely when the symptoms are urgent, but always under close supervision. Both the alcohol and the food are required at shorter intervals if the appetite fails and exhaustion is great; the patient can then only take food in very small quantities at a time, and in order to ensure his taking sufficient it must be given at much shorter intervals—every hour, perhaps every half hour, in bad cases. It is impossible to lay down any hard and fast rule with regard to the amount of alcohol: the dose depends entirely upon the idiosyncrasy of the patient and his strength at the time. In some patients the desired effect is produced by small quantities; in others large doses are necessary. The dose must be regulated by the requirements of the

individual, and the indications for its administration or an increase in the quantity already ordered must be looked for in the quality of the pulse, the clearness of the first sound at the base of the heart, and the condition of the nervous system.

In the cardiac failure which so often occurs in the third and fourth week of the fever digitalis or strophanthus may be tried; but in my own experience these drugs have been on the whole disappointing, and better results have followed the administration of ether, ammonia, and alcohol. In very severe cases, when it is difficult to induce the patient to take food and exhaustion is great, it is of the utmost importance to avoid increasing the distaste for nourishment by giving any drug except alcohol by the mouth. Stimulants may then be given in the form of enemata. We had lately in Queen's Ward a nurse who had been attending a woman in an extremely severe attack of enteric fever. The nurse contracted the fever from her patient and had in her turn the disease so severely that for some hours in the fourth week her life was despaired of. Ether, in the dose of half a drachm, was injected into the rectum when the symptoms were most alarming, and with the best possible effect. The delirium subsided, the subsultus tendinum was diminished, the pulse at once improved in quality, and the patient from that time progressed steadily towards recovery.

Bronchitis is rather a concomitant of enteric fever than a complication, and unless it is severe and involves the small bronchial tubes it is better to regard it as part of the disease and to avoid the risk of producing nausea and impairment of the appetite which follow the administration of the ordinary expectorant drugs, such as ipecacuanha, squills, &c. They should only be employed when the bronchitis becomes so severe as to be a source of danger to the patient's life, and even then the inhalation of oxygen is, perhaps, a more efficacious method of relieving the patient's distress. Hypostatic congestion of the lungs is one of the more serious complications of enteric fever and adds greatly to the gravity of the patient's condition. Being due to failure of the nervous and the circulatory systems it is best treated by a free use of stimulants—alcohol, ether, and ammonia—rather than by any of the remedies usually prescribed for pneumonia. There is, however, a method of mechanically relieving this engorgement of the lungs from which I have seen very satisfactory results—viz., by turning the patient first on to one side for an hour or so and then on to the other. By the action of gravity the engorgement of the uppermost lung is relieved and the circulation in it materially improved. The patient may at the same time be freely supplied with oxygen.

The most serious complications of enteric fever are hæmorrhage from, and perforation of, the bowel. With regard to the latter but little can be done in the way of treatment beyond relieving the pain if it exists and adopting such means as are likely to sustain the failing powers. Hæmorrhage from the bowel may occur comparatively early in the course of an attack of enteric fever—in the second week. The melæna is then the result of oozing from the bloodvessels of the congested agminate glands. It is not common at this stage, and if it occurs it is in small amount usually and is of far less grave import than even a small hæmorrhage in the third or fourth week, and probably all that will be required in the way of treatment is to keep the patient perfectly quiet. In the latter stages hæmorrhage may occur in large quantities and is then a cause of grave anxiety or alarm. It occurs sometimes so severely from an eroded bloodvessel on the floor of one of the ulcers that there is an instant fall of, perhaps, three or four degrees of temperature, while at the same time the patient becomes suddenly blanched. Such an accident is, of course, a most alarming complication, but it is not necessarily fatal. One of the worst hæmorrhages I think I ever saw in enteric fever occurred a few years ago in a boy of about fourteen years of age. He was suffering from a severe attack of the fever, and his bed was next to that of a man who became delirious during the night. The man suddenly sprang out of his own bed and jumped on to the boy's abdomen. A most alarming hæmorrhage from the boy's bowel was the consequence and the worst result was expected. Under careful management, however, no recurrence of the bleeding took place and the lad made an uninterrupted recovery. In no disease is an accurate knowledge of the date of onset more essential than in enteric fever—in fact, its treatment depends in great measure upon such knowledge. If the history of the case shows that the patient is passing through the second week and blood appears with the fæces it is due to oozing from congested vessels, and if the patient remain completely at rest the hæmorrhage tends to cure itself by the relief it gives to the engorged agminate glands. If rest fails to check it an enema containing opium will probably have the desired effect by checking peristalsis.

Ergotine has a good reputation in hæmorrhages, and the bleeding which occasionally takes place in the second week occurs under conditions in which the drug should theoretically be of much use. It produces contraction of the muscular coats of the arteries, and it is precisely under such conditions that it may be expected to do good. But if it is certain that the patient has reached the later stage of the disease it may be assumed that the bleeding is due to erosion of a vessel, possibly of considerable size, on the floor of one of the ulcers, and ergot can have but little effect upon it. Any contraction it might produce in the muscular coat of a comparatively large vessel would be quite insufficient to produce an appreciable diminution to the flow of blood from a large ulcerated opening in its coats or from the complete division of the vessel. Opium and the external application of cold are the most trustworthy remedies. Cold may be conveniently applied in the form of ice-bags to the abdomen, care being taken that the bags be not so large that by their weight when filled with ice they cause dangerous pressure on the distended intestines, or the abdomen may be covered with a sheet upon which several small lumps of ice may be placed. There is an objection, however, to this method—viz., that the bedclothes become saturated, and to exchange them for dry ones involves movement of the patient, and to change the position of a person under such circumstances greatly increases the risk of a fresh outbreak of the bleeding. Together with this external application of cold, opium should be administered in order to arrest whatever peristaltic action may still exist in the bowels. Unless the diarrhœa is excessive and the action of the bowels recurs at short intervals the opium may be given in the form of enemata of laudanum (ten minims to half a drachm) in starch solution and repeated as may be necessary, its general effect being carefully watched. If the diarrhœa be excessive the urgency of the symptoms may render it necessary to give the drug by mouth and for the moment its bad effects on digestion and the appetite must be disregarded. Under such circumstances the pilula plumbi cum opio is the most suitable preparation in four-grain doses every four hours. Turpentine has found favour with many practitioners in bad cases of intestinal hæmorrhage and doubtless it is a useful hæmostatic. The main objection to it is that it interferes with digestion, but if other methods fail trial of it should certainly be made.

In these cases of severe hæmorrhage in enteric fever the practitioner will sooner or later have to face the responsibility of giving or withholding stimulants. If they are withheld entirely fatal syncope may terminate the case; if they are incautiously employed the hæmorrhage may recur. If there are undoubted indications of failure of the heart's action they are the only remedies likely to avert a fatal issue, and the risk of a recurrence of the bleeding must be placed against that of death from syncope. They should be administered under these circumstances, but as a matter of course they must only be administered under the most careful supervision of the medical attendant in charge of the case. One word more. It is essential that in cases of hæmorrhage, however slight it may be, any food which leaves solid residue in the bowels should be avoided as far as possible, because such solid residue is likely to irritate the ulcerated Peyer's patches and the inflamed mucous membrane in their neighbourhood. It is advisable, therefore, that milk for the time being should be replaced by carefully prepared beef-tea, mutton broth, or chicken broth, by meat jelly, or by some of the more palatable extracts of meat which are nowadays so successfully prepared—by food, that is to say, capable of being absorbed by the stomach without leaving a residue which must eventually find its way into the intestinal canal.

THE INEBRIATES' RETREAT AT KINGSWOOD PARK, NEAR BRISTOL. — At the Trinity Quarter Sessions for Gloucestershire, held on June 20th, the chairman stated that the report of the visitors to the Inebriates' Retreat at Kingswood Park showed that it was conducted in an excellent manner; but regret was expressed that visitors did not attend in larger numbers, and it was pointed out that any magistrate in the district who was willing to serve on the committee would be doing a service to the county by signifying such willingness.

TUBERCULOSIS AND LEPROSY: A PARALLEL AND A PROPHECY.[1]

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TUBERCLE is the twin-sister of leprosy. The likeness between the two diseases is remarkable, and the points of resemblance are so numerous that we are encouraged to draw a parallel between them. It is possible, indeed, not only to compare them together, but also to draw conclusions from the past history of one of them, leprosy, which may shed light upon the probable course in the near future of the other, tuberculosis. In other words, from a consideration of the circumstances attending the decline of leprosy we may venture to make a forecast as to the probable date of the final disappearance of tuberculosis from our midst. Let us first trace their close relationship: (1) in their specific causation and in their morphology; (2) in their pathology; (3) in their distribution; (4) in their general history and the conditions favourable or otherwise to their existence; and (5) in their infectiveness and hereditary transmission.

1. *Their etiology and morphology.*—Each affection is characterised by the presence of a bacillus, and although the lepra bacillus is sometimes slightly clubbed at one end the two microbes are so similar that they can often scarcely be distinguished, either microscopically or by means of the tests applied to them. They take the same stains though at slightly different rates, and the lepra bacillus is less easily decolourised by certain reagents than that of tubercle. It is also grouped within the lepra cells more thickly than the tubercle bacillus is usually distributed. It is hardly, if at all, inoculable, and cannot readily be cultivated like tubercle. These are, however, comparatively trifling distinctions. The most important difference between them lies in their respective points of attack. The bacillus of leprosy chiefly affects the skin and mucous membranes, the nerves, and the bones; tubercle the lungs, the lymphatic glands, and the serous membranes. Yet they are both able to attack almost every part of the body. The bacillus of tubercle often seizes upon the bones and has been found in the nervous tissues, whilst that of leprosy is not unfrequently discovered in the lungs. On the whole, it is perhaps not surprising that some physicians, amongst whom we must place Dr. Danielssen, the great authority on leprosy, are inclined to believe from a study of their morphology that the diseases are identical in character and that their bacilli are modifications of one species altered only by their environment.

2. *Their pathology.*—The similarity which we have observed in the micro-organisms of these diseases is carried forward in their pathological action. The structure both of tubercle and the lepra knots shows that they are alike produced by slow inflammatory action due to the specific irritation of their respective organisms. They both travel infectively through the body, spreading chiefly along the track of the lymphatics; both usually have periods of latency or quiescence of longer or shorter duration; and both are capable of natural cure—i.e., by the unaided powers of nature; but they both tend to a fatal issue. The main point of difference in this regard between the two diseases is the greater chronicity of leprosy, which lasts on the average ten or twelve years instead of three or four, which is now the ordinary duration of tubercle.

3. *Their distribution.*—Both are distinctly "endemic" diseases, remaining for long periods in the same districts, varying little, if at all, in their rate of progress, independent of climate and season; but both are aggravated by overcrowding of dwellings, by dampness of subsoil, and by filthy surroundings. Leprosy, like tubercle, affects all classes of society, though both are more common amongst the poor and filthy than amongst the rich and cleanly. They both appear amongst the well-fed as well as amongst those who are half-starved; and though certain races of mankind are more prone to these diseases than others none are entirely exempt if other conditions are favourable. The proofs of some of these statements are to be found in a study of Leloir's map of the distribution of leprosy throughout the world and in a comparison between it and Lombard's map of the distribution of tubercle. In their localisation these complaints closely resemble one another, except that at the present day leprosy is absent from the British Isles and from the greater part of Europe, whilst tubercle is therein widely spread. On the other hand, leprosy is much more common than tubercle in Siberia, in Iceland, and generally in the islands of the world. But when we consider the ancient spread of leprosy, as well as that of to-day, it becomes evident that the phrase "a ubiquitous disease" is as applicable to leprosy as it is to tubercle. The other assertions made are also confirmed by the history of the diseases in every place that they have attacked.[2] The parallel only fails when we come to compare—

4 *The peculiar conditions under which each disease is able to exist and spread infectively.*—That these conditions are not exactly the same is evident, otherwise the same causes that have contributed to the decline, and ultimately to the extinction, of leprosy in most of the countries of Europe would equally have prevailed against tubercle. This, as we are only too well aware, is not the case, seeing that the latter disease is still much more widely spread amongst us than leprosy ever was.

As we have already seen, there is now no question as to the specific causes of these affections. They are both bacillary diseases; and as such the organisms, in order to produce the complaints, must be communicable, whether by contact, by inoculation, by fœtal transmission, or by air, food, or drink; but every person is not necessarily seized after exposure; in each disease the body can only become infected under certain conditions; and it is these all-important conditions and their connecting links that must now be studied. It is probably the neglect of this study in the past that has led to much of the controversy that has been carried on with regard to their communicability. In this research perhaps we may find some features that are common to both diseases and others that may serve to account for the differences in their distribution in time and locality. It will be necessary, then, to examine somewhat closely the nature of the predisposing causes of the two diseases, and at the outset I would point out that these conditions may properly be grouped under two chief headings: (*a*) the bodily conditions predisposing to each disease; and (*b*) the conditions of environment that tend to keep alive, or to increase the virulence of, the respective organisms of leprosy and tuberculosis.

A. It is not needful to say much under the first head with regard to tubercle. The causes of bodily predisposition to this disease have been thoroughly investigated and only require enumeration to be at once recognised. They are: (*a*) hereditary weakness of organs or of constitution rendering the body vulnerable by the bacillus; (*b*) susceptibility to the disease acquired by habits of life, occupations, &c.; (*c*) the influence of age, sex, and race; (*d*) the predisposing influence of previous diseases—either general diseases of the system or local injuries and disorders of the lungs themselves; and (*e*) a diet lacking in fatty matter. But when we come to consider the causes that increase the receptivity of the body to leprosy we have a somewhat more difficult task. It is, indeed, generally supposed that abrasions and wounds of the surface are necessary to the reception of the virus, mainly because exposed parts, such as the hands, feet, and face, are most commonly the places where the disease commences, and because of the acknowledged difficulty of producing infection by contact or even by inoculation; but this circumstance would not account for the dying out of the complaint in Central Europe, for we cannot suppose that such injuries became less common in more recent times. Again, some authorities believe that hereditary tendencies count for much in the susceptibility to leprosy. Amongst these we may cite Dr. Danielssen, Dr. Neisser, and Dr. Zambuco. But, on the

[1] A paper read before the Bournemouth Medical Society, May 15th, 1896.

[2] Dr. Thin says (Leprosy, p. 185): "There is a close analogy between the two parasites. They both may gain admission into the human frame without leaving any trace at the point of entrance; they both have an uncertain period of incubation; they both may develop rapidly or very slowly; and in both instances, once admission and development have taken place, the complete extinction of the parasite, if it ever does so, occurs with extreme rarity; although in both cases the parasite may be limited to certain isolated parts of the body and may live very quiescent over a long period of years, the death of the patient in process of time probably taking place from some other disease. Of the two parasites, the tubercle bacillus develops the strongest poison, and thus can mercifully kill the victim without producing extraordinary ravages and mutilations like those that take place before the patient succumbs to the enormous development of the leprosy bacillus which is compatible with life."

other hand, Dr. Hansen states that of 160 Norwegian lepers who had settled in the States of Wisconsin, Minnesota, and Dakota none of the offspring—in some cases as far as the great-great-grandchildren—have shown signs of the disease. He points out also that there could have been no question of heredity in the case of the great outbreak of leprosy in Hawaii. In any case heredity cannot have been of supreme importance, otherwise the disease would not have declined as it has done. In order to find out the essential conditions of its spread the most hopeful course to pursue is to compare the social state of the people in mediæval Europe with that which prevailed at or about the time of its decline and final disappearance; and to check our conclusions we may note to what extent the conditions we have marked are now to be found in the places where the complaint is still prevalent and advancing. This work has already been very thoroughly done by several writers—most recently by Dr. Newman in his prize essay on the History of the Decline and Final Extinction of Leprosy as an Endemic Disease in the British Isles (National Leprosy Fund). In a very able fashion this writer passes in review all the possible causes to which the susceptibility of populations may be due—absence of sanitation, poverty, dampness of soil, overcrowding, hereditary taint, inoculation, &c.; but he dismisses them all as really active agents in its promotion. He finally selects "dietetics" as the "only possible active cause left by the elimination and exclusion of the others." It may be remarked that in this conclusion he is by no means alone; he is supported, for instance, by Mr. Jonathan Hutchinson and by the reporters to the first Commission of the Royal College of Physicians of London on the subject; but it is right to mention that others, notably Dr. Thin and the second Commission of the same body, took a different view and gave in their adhesion to the "contagion" theory. In this contention cases are brought forward to show that the disease may be contracted when nothing wrong in the diet can be pointed out, just as persons have been known to become tuberculous who are well-fed in every respect. Yet in both diseases diet may be one of the predisposing causes; and it is hard to resist the strong evidence that this is certainly the case with regard to leprosy. Under the head of diet mere starvation is not included, for "poverty of food, provided this be fresh and wholesome, is insufficient to produce or perpetuate the disease."[3] Nor is it simply a "fish" diet; any unnatural food will predispose to it, but especially salt and semi-putrid fish foods. On this point it may be well to make a few selections from the mass of evidence, drawn from many sources by Dr. Newman, first, as to the diet of the people in the Middle Ages, and next, as to the change of custom in this respect just before and during the decline of the disease in Europe. Thus he quotes Larry, who ascribes the leprosy from which the French suffered in Egypt to the unwholesome character of the pork; Forrestus and others, who believed that the leprosy of the Middle Ages in England was due to the salt, putrid, indigestible food that was eaten, and the frequent scarcity of that owing to the disorder of the times. Exactly the same view was promulgated by the Royal College of Physicians of London in 1867. They call attention to the "scarcity of fresh meat during the Middle Ages and the ordinary consumption of highly salted meats, the scanty supply of vegetables and fruits, and the inferior and often unsound character of the bread in common use." In St. Kilda leprosy was ascribed "to gross feeding, and that on those fat fowls, the fulmar and solan geese, the latter of which they keep for a whole year without any salt or pepper to preserve them." Uncooked meat and other "gross aliments" are said to have caused leprosy in Ireland; half-rotten flesh or fish in the Färöe Islands. These views are supported by historical evidence collected from various sources as to the diet and social condition of the people of England in these early times. Only one or two examples of these can be given. From the kitchen accounts of Humphrey, Duke of Buckinghamshire (1443 to 1444) we learn of the purchase and storage of "10 barrels salt herrings, 11 cades fresh herrings, 6 cades sprats, 3379 salt fish, 3060 stock-fish, 6 barrels salt salmon, 1 barrel cod, 1 barrel and 13 salt eels, 1 barrel sturgeons, 12 lampreys, 1 pair of porpoises."

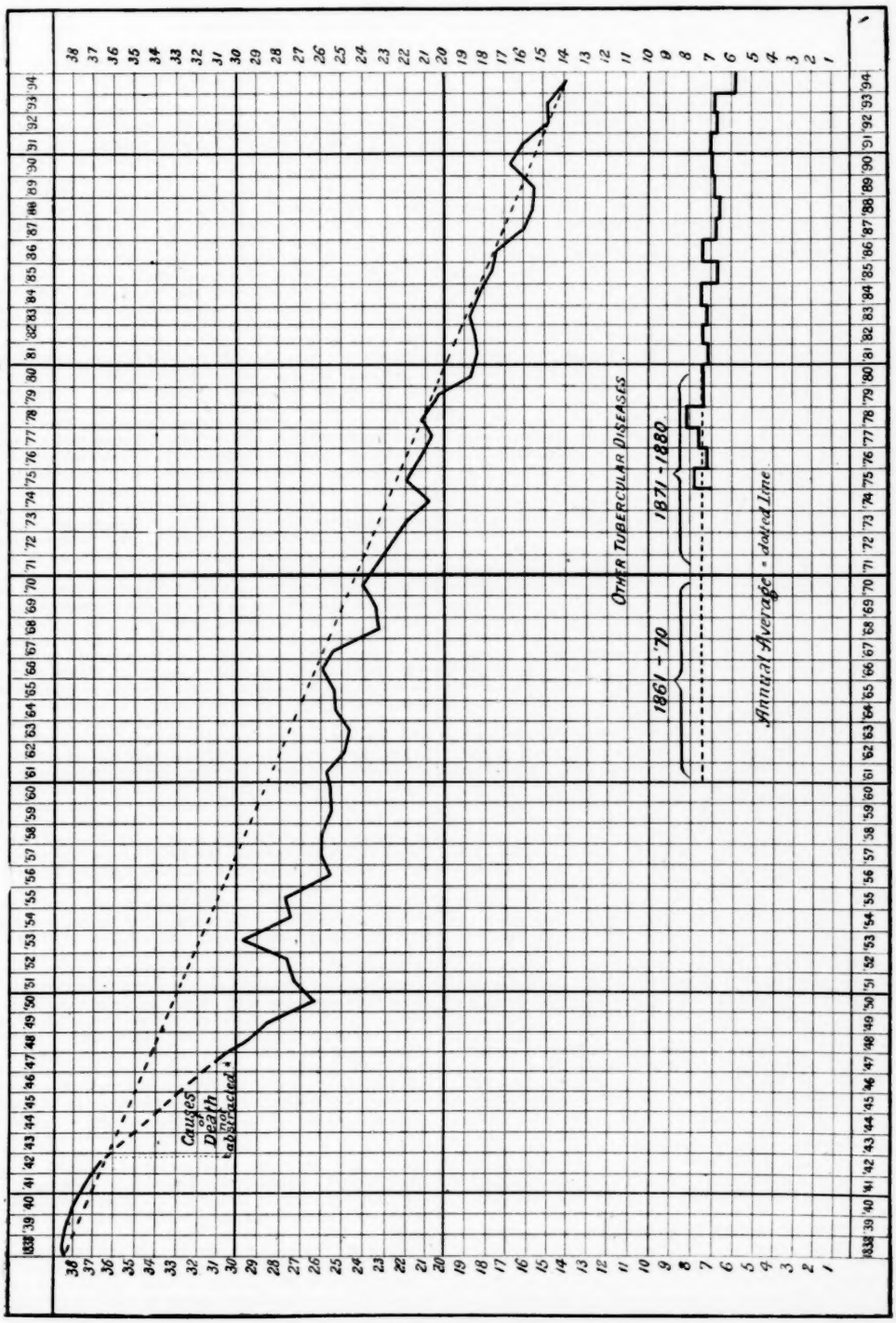
In 1446, at the feast to commemorate the instalment of George Nevile as Archbishop of York, 608 pikes and 12 porpoises were used. At a similar ceremony in 1504, when Warham was made Archbishop of Canterbury, the following quantity of fish was used: 300 ling, 600 cod, 7 barrels of salted salmon, 40 fresh salmon, 14 barrels of white herrings, 20 cades of red herrings (600 herrings in each cade), 5 barrels of salted sturgeons, 2 barrels of salted eels, 600 fresh eels, 8000 whelks, 500 pikes, 400 tenches, 100 carp, 800 bream, 2 barrels of salted lampreys, 1400 fresh lampreys, 134 salted congers, 200 great roaches, and a quantity of seals, porpoises, and other fish. This feast occurred, as it is stated, on a "fish day." It was said that "eels were used as abundantly as swine." Before the Reformation, indeed, "for nearly one hundred days in the year only fish could be used because of the numerous fasts, so salt fish must have gone practically all over populated England; and it is quite certain that a good deal of storage went on." In the latter part of the fourteenth century, in the reign of Edward III., an Act was passed to regulate the traffic in salted fish; it is evident, therefore, that before this period much fish had been dried, salted, and secretly stored. It is probable that this Act in some measure diminished the consumption of this article of diet, and that with the rise of Protestantism a still greater change in this direction took place. It was about this time that leprosy began sensibly to decline in this country. This evidence will perhaps be sufficient as far as mediæval dietetics are concerned, and with the exception of China Dr. Newman makes also a good case against the food in countries now afflicted by leprosy. With regard to China the only thing that he can find to say is that "much pork is used and quantities of *excellent* fish and shell-fish." In India "the ordinary diet of the natives is rice" with some herbs gathered out of the fields, but a good deal of fish is also eaten. "Dried fish is used all round the coast, especially in the Madras presidency and Burma. In the latter country dried fish, more or less in a state of decomposition, is almost universally eaten, but in small quantities." Reference is made to the report of the Royal College of Physicians of London, 1867, to show that a fish diet, inland or on the coast, is not a rare diet. Concerning Icelanders Vontroil says: "Their continual occupation is fishing; they are night and day exposed to wet and cold, frequently fed upon corrupted, rotten fish, fish livers and roe, fat and train of whale and sea-dogs, as likewise congealed and stale sour milk." "Nine-tenths of them know not the luxury of bread or vegetables" (Henderson). In New Zealand the natives lived on very restricted supplies of food. They had no quadrupeds and but few edible vegetables. They lived near the seashore and very largely on what the sea produced. "As regards the Englishmen who became lepers (very few indeed) it is thought probable that they got it from eating the same food as the Maories and not from contagion. It did not spread in their families nor did their children inherit it. ..... Dr. Myles[4] states that even so far back as the time of Captain Cook leprosy prevailed in New Zealand, but only on the shores of an inland lake where fish diet was used and nowhere else." In Japan "the diet of the people, especially the lower orders, largely consists of fish, often raw." With reference to a recent increase of leprosy in the Sandwich Islands Dr. Arning is quoted as saying "that although the use of fish as food had always been common it was only quite recently that it had been salted. Probably it was this recent use of salted fish which had caused the outbreak." Dr. Donnet attributes leprosy in Portugal to Newfoundland salted fish. Dr. Hjort says the same of the Färöe Islands. Speaking of leprosy at the Cape Dr. Wright says: "Anything that tends to lower the system would render the subject more liable to take the disease. It is due more to overcrowded dwellings in which people live like pigs. I think that, not the fish diet, but the decomposing fish around them is the more probable cause. Decomposing fish is more injurious than any other decaying matter."

It is upon these grounds that Dr. Newman bases his advocacy of the "diet" doctrine; and we may grant that he has strong reasons for believing that a certain diet does predispose to the disease. If this be so, then we have the further likeness between leprosy and tubercle that bodily predisposition is an important factor in the spread of each disease, though the causes of the susceptibility may be different in the two cases. The necessity for such predisposition is perhaps less in tubercle than in leprosy, for there can be no doubt that when the surrounding conditions are sufficiently bad the former disease can attack the healthiest

[3] Report of the Commission of the Royal College of Physicians of London, 1867.

[4] Royal Academy of Medicine in Ireland.

DEATH-RATES from PHTHI[illegible] in ENGLAND and WALES or 10000 living 1838 = 1896


DEATH-RATES from PHTHI... in ENGLAND and WALES per 10000 living, 1838 = 1894.
Causes of Death not tabulated.
OTHER TUBERCULAR DISEASES.
1861 - 70
1871 - 1880
Annual Average - dotted Line

individuals, and those who have no hereditary tendency to it. But it will be obvious also that the chief bodily predisposing influence in the case of leprosy has not the same effect upon tubercle. The rank fish foods have no determining effect upon the latter disease, but absence of fatty matter in the diet probably has. It is, perhaps, owing to these distinctive differences that phthisis is conspicuous by its absence in several parts of the world where leprosy is still rampant, as in Siberia, Iceland, the Färöe Islands, and St. Kilda; but it is yet only too common in places from which leprosy has entirely disappeared.

B. Next, as to the conditions of environment that tend to keep alive, or to increase the virulence of, the respective organisms of leprosy and tuberculosis. First, with regard to leprosy, it is probable that Dr. Newman goes too far when he affirms "that it may be taken for granted that contagion is not a chief cause of the propagation of leprosy in modern times." At any rate, the other writers of prize essays, Dr. Ehlers and Dr. Impey, and also Dr. Thin, differ entirely from him on this point. Dr. Thin shows (p. 137) that "leprosy when it has spread has always done so in continuity with previously existing foci." We can, therefore, only concede to Dr. Newman that not merely the infecting germ is needed but also a susceptible state of the body and that the predisposition is most commonly produced by unwholesome food. The infecting germ also needs a medium in which it can live. It is quite true that the lepra bacillus is very difficult to cultivate outside the body; but history and analogy both lead us to believe that it can retain its virulence in a filthy environment much longer than it can in cleanly houses. Dr. Newman's own historical survey contains ample proof that the conditions surrounding the populations attacked by leprosy were, and are, such as would tend to assist contagion.

It is not necessary to go deeply into the proofs of this assertion; it will be sufficient to quote a few passages bearing upon the point. "In all the towns of Europe the streets were unpaved and ill-constructed; every sort of filth was permitted to be thrown into the streets and remain there; vaults and common sewers were seldom adopted and the drains ran above ground; the office and duty of scavenger was imperfectly executed or neglected; the supply of water was deficient, and the narrowness of the streets prevented any free circulation of air." "From the thirteenth to the sixteenth century most of the towns of England and Europe were in the condition above described. The streets of London with common lay-stalls of all manner of filth and garbage, which the people were in vain ordered to remove from their own doors; the sewers, the few that existed, were much more harm than good, and large drains ran above ground; the access of air into the narrow streets was prevented by the projecting houses, which almost met at the top, and the intervening space below was filled up with enormous sign boards." Erasmus, in his often quoted letter to Cardinal Wolsey, says: "The homes of the people were wooden or mud houses, small and dirty, without drainage or ventilation; the floors, of earth or clay, were covered with rushes, straw, and other rubbish, which were occasionally renewed, but underneath lay unmolested an ancient collection of beer, grease, fragments of fish, spittle, the excrements of dogs and cats, and everything that is nasty." Close by the doors stood "the mixen," a collection of every abomination, streams of filth from which polluted the houses and neighbourhood, including any river at hand. "Soap was scarcely used at all, and certainly to the labourer was a luxury he could rarely afford to buy, hence a life of dirt in consequence. He slept upon heaps of decayed vegetable refuse, and yet there were no fresh vegetables to eat." The clothing was chiefly of wool and was rarely changed. "The use of linen changes, shirts or shifts, in the room of sordid and filthy woollen long worn next the skin is a matter of neatness and comparatively modern," and so on. Similar accounts are given of the peoples of China, India, and Iceland at the present day, and attention is called to the undrained, damp condition of the soil.

Dr. Ehlers believes that leprosy in Iceland is entirely due to the environment, and he gives the following graphic description of the "badstofa," the Icelander's dwelling. "If you enter this badstofa when thirteen or fourteen persons lie sleeping there, first of all you feel a temperature which certainly, both summer and winter, reminds you of the tepidarium of a Roman bath, but surely here the likeness ceases. A suffocating stink and an unwholesome smell meet you. It is the smell of the mouldy hay, of the sheepskin quilts that are never dried or aired; it is the smell of the dirt which is dragged into the house on the clumsy Icelandic skin shoes that want double soles, and are quite unqualified to keep out the dampness. In this dirt a confused mixture of cats, dogs, and children lie reeking on the floor exchanging caresses and echinococci; it is the smell of the wet stockings and the woollen shirts, which hang to dry next to a slice of dried halibut ('Reckling') or the dried cod's head, this dreadful irrational favourite dish, for which the Icelander pays four kroner [4*s.* 6*d.*] a hundred. And if you poke your nose into the corner of the badstofa you will find a bucket in which the urine of the whole party is gathered; it is considered good for wool-washing. One must have seen and smelt it all to be able to understand that the leprous disease is due neither to the rancid butter nor to the dry fish. Just as well as raising accusations against these articles of food which certain leprologists do, one might complain of the want of brooms to sweep the floor with, or insist that the leprosy is owing to the want of window-hooks or to the stagnant water that they drink. It is neither the one nor the other of these factors, but the whole ensemble; it is the absolute want of cleanliness plus Armauer Hansen's bacillus which in such an interior finds its true paradise. The rancid oil or butter is only a symptom of the general filthiness which manures the soil in which the disease thrives." Dr. Ehlers speaks scornfully of the "fish-diet" theory, of the idea that the introduction of the potato has lead to a diminution of the disease, for as he says: "At the present time the potato has found its way to most of the Icelanders' tables, but unfortunately the leprous disease is on the increase." "Is now this," he says, "maybe, the potato's fault?" Like Dr. Newman, he considers that "this disease can strike root there where Hansen's bacillus re-finds its favourite soil of uncleanliness, bad nourishment, and filthiness, under hygienic circumstances which have not altered in many respects since the Middle Ages."

Whether or not the poison of leprosy is directly introduced into the body in unwholesome food, which seems very unlikely, or is communicated from without through the skin, the external conditions that have just been described are only too well adapted to keep alive the virus and to facilitate its entrance into a susceptible person. In several points, as we have already seen, the conditions favourable to leprosy touch those that help forward tubercle, notably the overcrowding and the want of proper drainage of the subsoil of dwellings; but, as we have already seen with respect to diet, so also the surrounding conditions that assist, or rather that are essential to the one disease, cannot be identical with those that are mainly instrumental in bringing about the other. The filth of Siberia, Iceland, and St. Kilda has not been able to propagate the virus of tubercle as well as that of leprosy. Apparently, also, although laboratory experiments do not demonstrate the fact, the distribution of the two diseases tends to show that the lepra-bacillus stands cold better than that of tubercle. The specific influence favourable to the spread of tubercle is undoubtedly "foul air" polluted with organic matter from an impure subsoil, or, still more potent for evil, air polluted by emanations from the lungs and bodies of human beings crowded together within small areas, organic products scarcely diluted by the scanty supplies of outer air that make their way into the close dwelling-rooms and seldom swept away by true ventilation. It is unnecessary to accumulate proofs of this now well recognised fact, but we may again recall the terrible experience of the British army before 1855 in all parts of the world, the history of overcrowded public institutions, and the tubercle-infected areas of our large towns. The contrast, also, between the incidence of the disease upon populations living an open-air life and upon those aggregated together in ill-drained, badly-ventilated, closely-packed tenements is sufficient to indicate the true source of the evil. When leprosy died out of Mid-Europe it is probable that in the above-mentioned respects the people were no better off, if not worse, than they were before, and hence, although this disease slowly dwindled away, tubercle was as rampant as ever.

Lastly (5), we have to consider yet another singular resemblance between tubercle and leprosy—namely, the curious coincidence that the questions of their transmission by contagion and by hereditary descent are still hotly disputed amongst the physicians of our time, especially amongst those who are likely to be best acquainted with these disorders. I need only cite Dr. Hansen and Dr. Danielssen of Norway, who are on opposite sides, with reference to the

contagion and the hereditary nature of leprosy; and Dr. Baumgarten and Dr. Bollinger in regard to tubercle. It is true that these disputes are only matters of opinion; but underlying them, and causing the difference of opinion, there are fundamental points of resemblance between them. In both the difficulty of proving contagion arises from the length of time that may elapse between the reception of the virus and the outbreak of the disease; in both there is the necessity for some anterior existence, or preparation, of a fertile bodily soil upon which the organism can germinate; and in both there is the abundance of infecting material everywhere spread abroad. Again, in regard to the question of inheritance, there is interposed in the case of each disease the stumbling block that the surroundings of families are usually similar, rendering it difficult to say whether the disease was favoured by hereditary weakness or by the environment. Looking back, then, for a moment, we have seen that these disorders are alike (1) in their etiology, (2) in their pathology, (3) in their course and distribution, and (4) in many points in their natural history. We can, therefore, say that they run upon closely parallel lines; but that, in spite of their remarkable similarity, they cannot be regarded as absolutely identical, as they are still by some authorities; nor can we accept Mr. Hutchinson's opinion that the differences between them may possibly be only acquired and temporary.[5] Notwithstanding the differences that we have marked between the two diseases, however, I venture to think that they are at least so far alike as to make it permissible from a study of the decline of one complaint and its causes to attempt to glean some idea of the most hopeful means of diminishing the other; and that we may even go on further and prophesy that as one disease, leprosy, has disappeared from our midst, so the other, tubercle, may also be made to vanish, and that from the recognition of its predisposing causes we may learn in what way it may best be attacked and finally driven from amongst civilised nations.

1. The first lesson to be learnt from a review of the history of the disease is the fact that leprosy was banished mainly by general sanitary measures, by reforms in the modes of feeding, by better clothing, and probably to some extent by greater cleanliness of houses and persons.

2. That it was scarcely affected by direct efforts at preventing contagion. All the authorities are agreed that segregation of the lepers in lazar houses had little or nothing to do with its decline. Dr. Newman shows "that strict segregation never was carried out in England." Dr. Ehlers declares that the four hospitals founded in Iceland in 1651 "never got to contain many of the leprous patients, hardly more than 5 per cent. of the whole number." The Chief Rabbi of the Jews, the Rev. Dr. Adler, writes to Dr. Thin: "The uncleanness of the leper seems, according to the Talmud, to have been an ordinance for the purpose of securing Levitical purity, and not for the purpose of preventing contagion. For this reason the heathen or stranger when a leper was not considered unclean." Dr. Thin himself, though an advocate for isolation, yet remarks (p. 164): "It is evident that the vitality of the bacillus leprae, which has kept the organism alive in successive generations for four or five thousands of years (and who can tell how much longer?), is nevertheless associated with conditions that render its transmission from one host to another an operation which is only successful by a combination of circumstances that, fortunately for the human race, take place comparatively exceptionally." In other words, if the conditions favourable to its spread are done away with the decline of the disease is certain and it need not be a terror to mankind. Much the same may be said of tubercle. Segregation is still less necessary for the prevention of this disease than for that of leprosy. No attempt at isolation has hitherto been made in this country for the suppression of phthisis; and yet, as we shall see presently, the disease is gradually disappearing. In the next place, applying what we have learned with regard to leprosy, we may fairly expect that tubercle will be amenable, first, to general sanitary measures, and second, to care in regard to diet. It is, indeed, probable that tubercle can more easily be stamped out than leprosy, and it is likely that if the work is once fairly undertaken it will be more successful than a crusade against leprosy. The bacillus of tubercle, though very tenacious of life under certain conditions, is in truth a very tender plant. (1) In the form of tuberculous dust it is destroyed by a short exposure to direct sunlight or even diffuse daylight. Free currents of fresh air, also, soon diminish its virulence or destroy its power. We can affirm these facts, not only as a deduction from the history of the disease, but also by an appeal to direct experiment. In a research carried out in 1889 by Professor Dreschfeld and myself[6] it was found that sputum, exposed to the air in a poor, badly-drained cottage, retained its virulence for two or three months at least; but the same material, freely exposed to air and light in a hospital for phthisis, and in a well-lighted, well-ventilated, and well-drained house, entirely lost its power of communicating the disease even after inoculation into rabbits. More recently Professor Delépine joined me in the work, and we made an attempt to determine how short a period of exposure to air and light would suffice to destroy the virulent action of the microbe.[7] The minimum time of exposure to air alone—i.e., in the dark—was not fully ascertained, for after three days of such exposure tubercle was produced, though it was evident that the power of the virus was already somewhat attenuated. On the other hand, all the specimens exposed to both air and light, even for two days only and for one hour of sunshine, were found to have entirely lost their power for evil. It will be noticed that the times of exposure to either air or light were less than would suffice for the drying and pulverisation of the sputum under ordinary circumstances. Specimens of the same tuberculous material gave tubercle to guinea-pigs after it had been kept in the dark and with very little air for thirty-five days. These tests were much more severe also than would be found in the case of infection to human beings. The animals employed are the most susceptible to the disease that could be found, and they took the virus through inoculation, and not merely by breathing; the usual safeguards against infection by the latter route, therefore, were entirely absent; and human beings are usually much less vulnerable by the bacillus than either guinea-pigs or rabbits. It is evident then that the virus of tubercle is readily disinfected by natural agents, such as fresh air and light, and this conclusion is strengthened by the universal testimony to the value of free ventilation and light for the prevention of the disease. General sanitary measures, therefore, directed to these ends will certainly be of great use in any attempt to stamp out the disease. Good drainage of the soil is also very effective in the same direction. It has been amply shown that drying of the subsoil in many cases takes away half the strength of the virus. I need only cite the observations of Dr. Bowditch and Dr. Buchanan on this point—observations that have been fully corroborated by the Registrar-General for Scotland, by Mr. Haviland, and by myself.[8]

3. The careful inspection of cowsheds, the thorough cooking of meat, and the sterilisation of milk will easily prevent the bacillus from entering the body by the alimentary canal; and the disinfection of sputum, the prevention of the formation of tuberculous dust, and the proper control of all places of public assembly will effectually prevent its entrance by the lungs.

4. We may add that the causes of bodily predisposition to phthisis are even more easily dealt with than those that exist in the case of leprosy. It is, therefore, only necessary to press forward the general sanitary measures that are concerned with these several objects, and we may regard as no Utopian dream the forecast that after only a few more years we may see the total extinction of tubercle in our land. Few people know how far we have progressed in this direction. I append a chart (which has been kindly verified by Dr. Tatham) showing the phthisis-rate per 10,000 of the population during the last fifty-eight years. In the year 1838 it stood at the enormous figure of over 38, and in 1894, little more than half a century later, it was only 13·8—little more than one-third of its former prevalence. A straight line drawn from its highest to its lowest points shows also that its decline had been remarkably steady and generally regular.[9] If phthisis were to continue to diminish in prevalence at the same increasing rate of decline for

[5] Brit. Med. Jour., March 8th, 1890.

[6] Proceedings of the Royal Society, vol. xlix., p. 66.

[7] Ibid., vol. lvi., p. 81.

[8] The Milroy Lectures for 1890: Smith, Elder, and Co., p. 44; and Treatment of Phthisis, same publishers, p. 61.

[9] My friend Dr. Venn points out that the fact that the line joining these two points is approximately straight, and not a hyperbola, demonstrates further that the rate of diminution in the disease is an increasing one. If the percentage of diminution had remained constant during these years the fall would have been more gradual and the extinction of the disease would have been postponed indefinitely.

another thirty years it would then have entirely disappeared. The first great drop in its rate took place in the decade 1840-50, about the time that serious attention began to be given to sanitary reforms and especially to land drainage. It then remained scarcely reduced for about seventeen years; but from 1867 to 1894 it has been steadily on the decline. It is in this period that most of the great sanitary works have been carried out in this country. Can we doubt that it is to them that we owe so substantial a diminution of the disease? And need we despair of carrying it on to its fitting close? Let it be remembered that this improvement has taken place in spite of the increasing aggregation of the population in towns and without any special measures of repression having been attempted. It is, indeed, only recently that tubercle has been reckoned amongst preventable diseases, and although some slight efforts at the disinfection of sputum and the cleansing of rooms occupied by phthisical patients have been made we certainly cannot ascribe any part of the improvement that has taken place to these causes.[10] What may we not hope for when these measures come to be recognised as a part of the duty of every sanitary authority throughout the kingdom?[11] It is interesting to note that the other tuberculous diseases—such as scrofula, mesenteric disease, and tuberculous meningitis—have not diminished in like proportion.

Dr. Tatham has kindly sent me the following table from his decennial supplement, not yet published, from which it will be seen how slight a change has taken place in the rates of these diseases in the last thirty years. I have marked on the chart the annual rates per 10,000 for the last twenty years, as given in the Registrar-General's report for 1894. The difference between the first and last decennial periods per million is only 69, or rather less than 9 per cent. The rates under the heading of scrofula have, in fact, considerably increased—a fact difficult to account for if the causes of phthisis and scrofula are the same.

Annual Mortality per Million Living from Tuberculous Diseases, other than Phthisis.

Decennia.	Rates per million.
1861-70	765
1871-80	747
1881-90	696

The only possible sources of fallacy that can be discovered in these figures are (1) the uncertainty of diagnosis in the earlier periods of the registration of the causes of death, and (2) the acknowledged longer duration of phthisis in the later years. If in former days more cases of bronchitis or broncho-pneumonia were mistaken for phthisis, then these mistaken cases might have raised the apparent rates of mortality of this disease. Again, in more recent years the extension of the average duration of its progress before it ended in death would for a time postpone the appearance of these deaths in the register and would by so much lessen the phthisis rate without necessarily diminishing the real prevalence of the disease throughout the country. It is probable, however, that neither of these intrusive faults would account for the remarkably steady fall in the rate. Phthisis is a disease so easily recognised in its later stages that it has probably been reported with a fair degree of accuracy all through the period in question, and sooner or later most of the chronic cases of phthisis would have found their way into the death-roll. There is thus no important bar to our hope of a speedy extinction of phthisis if not of other tuberculous diseases, and the prophecy drawn from the analogy of leprosy is already in process of being fulfilled.

Bournemouth.

[10] A talented writer, Mr. G. Archdall Reid, in a recent work on The Present Evolution of Man (Chapman and Hall, 1896, pp. 279-286) ascribes the lower rate of mortality from tuberculosis amongst the British races to an increased resistance to the microbe, a power due to "the accumulation of inborn variations"; but this explanation will surely not apply to so rapid a decline as the diminution of from 60 to 70 per cent. in the course of sixty years. It is far more likely to be due to the causes to which we have assigned it: to the sanitary measures, including improved diet, which have at once and directly diminished the infecting power of the bacillus and increased the bodily powers of resistance in the mass of the population.

[11] We may, perhaps, find an additional feature of likeness between leprosy and tubercle in the fact that they have both given way, not to intentional measures of repression, but to general reforms in sanitation, by which the whole physical welfare of the nation has been raised.

SUPERANNUATION ALLOWANCE. — Mr. Thomas Francis, L.R.C.P. Edin., M.R.C.S. Eng., late medical officer for the first district of the Bradford Union, has been granted a superannuation allowance of £107 13*s.* 4*d.* per annum.

ON THE TREATMENT OF INOPERABLE CASES OF CARCINOMA OF THE MAMMA: SUGGESTIONS FOR A NEW METHOD OF TREATMENT, WITH ILLUSTRATIVE CASES.[1]

BY GEORGE THOMAS BEATSON, M.D. EDIN.,

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I HAVE no doubt it has fallen to the lot of nearly every medical man to have been consulted from time to time by patients suffering from carcinoma so widely spread or so situated that it has been quite apparent that nothing in the way of operative measures could be recommended. Such cases naturally excite our sympathy, but they also bring home to us the fact that once a case of cancer has passed beyond the reach of the surgeon's knife our curative measures are practically *nil*, and "that whether the case advance with giant strides or with slow and measured steps the result is equally sure and fatal." Of late, owing to my taking up the work of surgeon to the Glasgow Cancer Hospital, I have seen a considerable number of such cases, and an opportunity has been furnished me of working out a line of treatment which I am not aware has been as yet tried by others and which is founded on a view of the etiology and nature of cancer which is entirely opposed to the local parasitic theory of the disease and which seems to me to offer a more reasonable explanation of it. As these inoperable cases of cancer may be arranged into two groups—first, those which have been operated on, but in which, sooner or later, there has been a recurrence, or, as it should perhaps be better expressed, a re-appearance of the disease; and, secondly, those in which no operation has been attempted, but in which, when they first present themselves, the disease has progressed so far that no local removal could be attempted—I shall bring forward three cases, one of which is illustrative of the first group and the other two of the second.

The first case, then, that I wish to bring under notice is that of a woman who consulted me on May 11th, 1895, at the Glasgow Cancer Hospital, bringing me the following letter:—

"Apsley-place, May 6th, 1895.

"DEAR DR. BEATSON,—The bearer is, and has been, suffering, I fear, from a malignant breast. She has been in the Royal Infirmary before she came to me. My own opinion is that nothing can be done for her, but as she is a woman of great courage you might have a look at it for my sake, and perhaps you can order her something in the way of dressing. Even this little will be accepted by her as a great deal.

"With kindest regards, yours very truly,

"JAMES W. WALLACE."

The history she gave me was that she was thirty-three years of age, married, and the mother of two children, the oldest three years of age and the youngest fifteen months. She nursed both her children for from ten to twelve months, chiefly on the left breast, the first child entirely so, as the right breast suppurated for two or three weeks. While nursing her first baby she observed a small, hard lump at the outside of her left breast, and as it was painless and did not increase in size she took no further notice of it. It was only when her second baby was born twenty months later that she became aware it was increasing. She nursed the child on both breasts notwithstanding, and it was not for ten months, by which time the tumour had grown a good deal, that she weaned the child and sought advice at the Glasgow Royal Infirmary. In January of 1895 she was admitted to that institution, and the journal report states that an examination showed the left mammary gland to be a little more swollen than the right one and to present a hard and nodular appearance. In its centre was felt a large mass, measuring 5 in. across and 3½ in. in vertical diameter, while small nodules from this infiltrated the skin around. About 2 in. upwards and to the left of the nipple was seen an ulcer 1 in. in size, two nodules about the size of beans bordering on the extreme left of this ulcer. The patient

[1] A paper read before the Edinburgh Medico-Chirurgical Society on May 20th, 1896. Microscopic sections, kindly prepared by Dr. R. M. Buchanan, were shown of the growths in the cases described in the paper.

appeared to be strong, healthy, active, and robust. On Jan. 25th, 1895, she was operated upon. The hospital journal says that the left breast was excised, a large area of skin free of tumour being taken away. The axillary glands were removed, also a considerable part of the pectoral muscle which appeared to be implicated. A plastic incision was made parallel to the trunk to allow of the edges of the wound being approximated. The patient seemed to have made a good recovery and to have left the Infirmary towards the beginning of March with the wound almost healed. About a month after she had gone home—that is, within three months of the operation—she noticed that the wound had opened, that a little discharge was coming away, and that pain of a shooting character had developed. She observed also that some hardness was developing at the side of the scar, and so she returned to the Infirmary for advice. She was there told that she should come into the hospital again. She was readmitted for a few days and then discharged, as it was thought that an operation would be useless. The journal report is as follows: "April 28th, 1895: Dismissed. General involvement of whole scar by large tumours, cancerous in nature, to remove which entirely was thought impossible. Adherent axilla and chest walls. One of the wounds from the recurring secondary tumours has given way and there is now an ulcerated surface." Such, briefly, was the outline of her personal history as detailed to me. On questioning her nothing could be elicited in her family history that showed any hereditary tendency to cancerous disease. On May 11th, at the time she presented herself to me, the local condition for which she sought advice was as follows. On the left side of the thorax there was seen a very extensive cicatrix in the situation of the left mamma, which had apparently been entirely removed. The scar extended from the middle of the axilla to within 1½ in. of the xiphi-sternum. It was irregularly curved in aspect. Above the centre of the scar was a cicatrising area, which had broken out after the operation in January last. This was now granulating and seemed healthy, but immediately below and arching over the centre of the long scar was a mass of recurrent tumour, hard and nodular, with much thinning and discolouration of skin. This mass was curved in shape, about 2½ in. broad at its broadest part, and about 3½ in. in length. There were other nodules in the cicatrix as far back as the axilla. Four inches lower down there was the linear cicatrix of a plastic operation, made apparently to allow of the sliding together of the edges of the operation wound. No enlarged glands could be felt in the axilla or above the clavicle, but there was a distinct tumour of the left lobe of the thyroid gland, with some enlargement of the isthmus. This, however, she said had been present as long as she could remember. The right breast and axilla were free from any disease. The patient's weight was 9st. 9lb. She looked pale and careworn, and when questioned admitted she felt ill and was quite unable to perform her household duties. From the clinical history she had given me and from the local condition present I had no doubt that the case was one of carcinoma—a diagnosis that was subsequently confirmed by our pathologist, Dr. R. M. Buchanan, who reported as follows on a portion of tissue taken from the ulcerated surface above the line of the cicatrix: "The portion of tissue ..... is typically cancerous. The cellular elements predominate over the stroma very largely."

The question that had to be decided was whether anything further could be done for the case. As regards local removal I was quite at one with the opinion already expressed at the Royal Infirmary that it was unjustifiable, because the prospects of complete eradication of the cancerous material were not good, and previous experience had shown me that in young patients such as the present the attempt is seldom successful and, indeed, sometimes seems to hasten the progress of the disease, which assumes an acute and fulminating form, most disappointing and disastrous. Failing, then, local measures, could the disease be attacked in any other way and by any other channels? To answer this it is necessary that I should put before you views that I have for some time held as to the etiology or cause of cancer generally, but more particularly of that of the female mamma. Before, however, doing so I think it will be advantageous that I should very briefly lay down what I consider is the present state of our knowledge of carcinoma or cancer, so that I may make it quite clear what I mean by that term and that there may be no difference of opinion as to what it is we are discussing. Well, I think I put the case fairly when I say that there are certain points in carcinoma on which we are all agreed and others on which there is great diversity of opinion. I think we are all at one on the following: 1. That carcinoma is a tumour taking origin in epithelium and having an epithelial structure. 2. That the essential feature of the disease is the continuous and excessive growth of this epithelium, which invades the surrounding tissues, spreads along the lymphatic vessels, passes from one set of glands to another, and eventually forms deposits in distant organs and parts of the body. 3. That once this proliferation of epithelium has begun nothing that we know of has the power of arresting it. 4. That if a microscopic section of a carcinoma is made sufficiently thin and stained certain special cells are observed, which cells, although not fulfilling the *rôle* of Lebert's specific cancer-cell, are yet sufficiently characteristic of the disease and are now known as "cancer-bodies." 5. That clinically it is a matter of common observation that the younger the patient the more rapid the cell proliferation and the more quickly fatal the disease; while in many old persons cancer assumes the atrophic or withering form from fatty degeneration and absorption of the epithelial cells, little more being left than a mass of fibrous tissue with here and there a few cells surrounded by granular débris. 6. That cancer kills either by septicæmia from absorption of unhealthy products, or by hæmorrhage, or by interference with the function of some important organ. 7. That in our present state of knowledge of the nature and etiology of cancer the best treatment we can offer our patients is the complete removal of the disease by the surgeon's knife, and that the aseptic surgery of the present day allows this to be done more freely than heretofore, so that very extensive operations are performed nowadays.

There is, however, not the same unanimity of opinion on the two following points in connexion with cancer: (1) as to the purely local origin of the disease; and (2) as to the interpretation to be put upon the structures known as cancer-bodies.

Taking the first point, we find that some hold that the carcinomatous growth has a purely *local* origin—starts, in fact, from an irritation developed locally, and that if that irritation and its effects are freely removed the patient is cured. Others, again, teach that carcinoma, though an affection of the solid tissues, as shown in the local cell proliferation it causes, is really a blood disease and that the tumour is only a local manifestation of a blood affection. Lastly, there is what I may term a third school, who hold that there is a certain state of the system or of the tissues in which a local injury, such as a blow, will start a carcinoma of the part, and without this local irritation a cancer will not develop. Coming next to the interpretation to be put upon the cancer-bodies, a large number of observers, and amongst them men of the highest standing, look upon them as intra-cellular organisms of the nature of coccidia, or psorosperms, as French writers call them, and they regard them as the cause of the cell activity and proliferation characteristic of cancer. One distinguished member of the Edinburgh Medico-Chirurgical Society, Dr. Russell, has brought out the fact that these cancer-bodies can be particularly well displayed by fuchsin staining, but, if I remember correctly, he looks on them as closely related to the yeasts. Others, however, are not satisfied as to the parasitic nature of these cancer-bodies. They explain them as arising from the embedding of leucocytes within certain of the cells, or, as Klebs puts it, from the fructifying influence of the leucocytes upon them; while others, again, think that they are simply epithelial cells undergoing vacuolation in the course of what is evidently a mucoid degeneration. I confess that of late this latter has been my own feeling.

I must now be allowed briefly to mention what has led me to modify still further my views about these cancer-bodies, and also to lean to an explanation of the exciting cause of cancer that is quite opposed to the parasitic theory of the disease. I shall do so as shortly as I can. It is just twenty years ago that I was asked to take medical charge of a man whose mind was affected, and I went to reside with him at one of his estates in the west of Scotland. My duties were at times exciting, but never onerous, and I had a good deal of leisure to myself. I thought it would be a good opportunity of writing my M.D. thesis, and after consideration I decided I would take up the subject of lactation. What suggested it to me was the weaning of the lambs on a large adjoining sheep farm soon after I went down to my patient. Accordingly I commenced to work at it, getting all

the practical information I could about it from the farmers and shepherds round. At that time, however (1876), cerebral localisation was being much talked about, and I took up the disease study in sheep instead, as there were a good many cases of it just then. I yet, however, elicited the following points in connexion with lactation that struck me as of great interest. 1. I found that the secretion of milk, though undoubtedly affected by the general nervous system, had no special nerve-supply of its own to control it. Neither section of the sympathetic nor of the spinal nerves seems to influence it. The erectility of the nipple is affected by cutting the latter, but nothing more. 2. It was clear to me that the changes that take place in the mammary gland in the process of lactation are almost identical, up to a certain point, with what takes place in a cancerous mamma. We have, under both these conditions, the same proliferation of generations of epithelial cells which block the ducts and fill the acini of the gland; but in the case of lactation they rapidly vacuolate, undergo fatty degeneration, and form milk, while in the carcinoma they stop short of that process, and, to make room for themselves, they penetrate the walls of the ducts and the acini and invade the surrounding tissues. In short, lactation is at one point perilously near becoming a cancerous process if it is at all arrested. 3. I learnt this very remarkable fact, that it is the custom in certain countries to remove the ovaries of the cow after calving if it is wished to keep up the supply of milk, and that if this is done the cow will go on giving milk indefinitely. This fact seemed to me of great interest, for it pointed to one organ holding the control over the secretion of another and separate organ, and thus explained the absence of that distinct nervous control that I pointed out as characteristic of the mamma. Of course, the close intimacy between the ovary and the mamma is well known to all of us, as seen in the absence, as a rule, of the menstrual function during lactation, but I certainly was not aware until then that it was of the nature that it would seem to be and almost of a distinct control. In our country farmers have not gone the length of spaying cows as in Australia, but they attain the same end of having a continous supply of milk by getting rid of all ovarian influence in another way. We know that during pregnancy the ovary is, as a rule, functionless—that is to say, we have not the indications of its activity in the shape of the menses, and it would seem to be in its turn brought under the control of the pregnant uterus. Farmers knew that their cows after calving usually begin to menstruate every three weeks and that with the establishment of this function the mammary secretion gradually lessened. They also knew that during the nine months the cow carried her calf she did not menstruate, so to prevent menstruation and lessened milk they put the bull to the cow usually two or three months after the calf is born and when the milk secretion is becoming lessened, the result being that with pregnancy the secretion ceases to lessen and remains copious. I need hardly say that though I temporarily abandoned the subject of lactation for my thesis I did not lose sight of the facts above mentioned, for they seemed to me to point to influences at work in the human system that had not as yet been generally reckoned with or recognised. Above all, I was struck with the local proliferation of epithelium seen in lactation. Here was the very thing characteristic of carcinoma of the breast, and, indeed, of the cancerous process everywhere, but differing from it in that it was held in control by another organ, and could either be arrested by that organ altogether or continued to a further stage, where the cells became fatty and passed out of the system not only in an innocuous but nourishing fluid—milk.

Now I think I am correct in saying that the spirit of modern pathology is this—that all pathological changes are merely modified physiological ones, that there is no essential difference between the two, and that a knowledge of the forces controlling the one may sometimes give us a clue to the other. I often asked myself, Is cancer of the mamma due to some ovarian irritation, as from some defective steps in the cycle of ovarian changes; and, if so, would the cell proliferation be brought to a standstill, or would the cells go on to the fatty degeneration seen in lactation were the ovaries to be removed? For an answer to these questions I felt I must wait; but on settling in practice in Glasgow in 1878 I determined to look further into this point of the control the ovaries seemed to have over the function of lactation. Accordingly I obtained at the end of 1878 a licence for performing the experiment of removing the ovaries from suckling rabbits. Through the kindness of Professor M'Kendrick I was able to carry my experiments out at the University laboratory. Space will not allow me to go into them in detail, but I may say that the three cases I tried all confirmed the fact. As long as the young ones were at the breast the milk-supply continued, and when eventually they were taken away the milk-supply ceased; but the creatures increased very much in size, and post-mortem examination revealed that this was due to large deposits of fat around the various organs, and, above all, in the lumbar region, where there were masses of pure adipose tissue, showing that the secretion of milk was still going on, but, not being discharged by the usual channels, was deposited in the various tissues of the body as fat.

In the year 1882 a case of uterine cancer, unsuitable for local removal, came under my care, and I thought I would try on it the effect of removal of the tubes and ovaries, as the patient was willing to submit to any operation. I found, however, on performing abdominal section that the disease had extended so much into the broad ligaments that a satisfactory removal of the appendages could not be accomplished and I abandoned the operation. She made a good recovery from the laparotomy, but died some months later from her disease. With this single attempt to put my views to the test I was for a time content, as I was very unwilling to do anything of the nature of experiments on my fellow creatures. Further, with the rise and progress of bacteriology I began to share in the hope that in this quarter a solution of the true nature of cancer would be found, and, with the announcement of the so-called cancer bodies, now generally recognised, I began to think less and less of my ovarian theory of the origin of cancer.

On taking up my work at the Glasgow Cancer Hospital, which I may say has been established not only for the treatment of cancer in all its stages but also for the pathological study of the disease, I felt that the position of matters was that our present state of knowledge has nothing better to offer than the surgeon's knife for the cases where the tumour was limited and could be thoroughly removed; but that in inoperable cases, if the so-called cancer-bodies were not parasites at all but merely cells undergoing mucoid degeneration, it was possible a free administration of thyroid extract might influence the growth and work through time a cure. Failing this, I thought I might follow up my old line of reasoning, and in cases of advanced carcinoma of the breast in young patients see what effects the removal of the tubes and ovaries would have on the progress of the cancerous growth in the way of arresting the cell proliferation and converting the cells into fatty matter. Although the breast had been removed, this was the line of procedure I decided to adopt with the case under notice, and accordingly on May 11th she was put upon the thyroid tabloids. They were pushed until their physiological action was made apparent; but as no appreciable change was seen in the diseased condition at the end of a month I put it to her husband and herself as to whether she should have performed the operation of removal of the tubes and ovaries. Its nature was fully explained to them both, and also that it was a purely experimental one, but that it could be done without risk to life; and that, if it should have no effect on the cancerous process, it would cause her no increase of suffering. She readily consented that I should do anything that held out any prospect of cure, as she knew and felt her case was hopeless. On June 15th I operated and removed the tubes and ovaries on both sides. The right ovary seemed healthy; the left one was somewhat cystic. Subsequently there was some little trouble with the action of her bowels; but she made a good recovery and on June 28th was sitting up. No local application was made to the diseased areas on the thorax. They were simply kept clean with boric lotion and dressed with protective and boric lint. On July 12th the administration of the thyroid tabloids, three daily, was resumed, as I felt that though I hoped by my oöphorectomy to arrest the cell proliferation and favour, perhaps, fatty degeneration of the cells, there was present such a large amount of cancerous material that a powerful lymphatic stimulant such as thyroid extract might be useful. On July 19th, about five weeks after operation, an examination of the diseased areas on the left side of the thorax showed, as the hospital report states, undoubtedly a marked change compared with their condition some weeks ago. The larger mass of disease was much less vascular. It was also smaller, flatter, and altogether less prominent, and the same may be said of all the other secondary foci of disease. The

tissues around were also softer and more pliable. On Aug. 1st it was noted that the local improvement continued and that the measurements of the largest area of disease were—length, 2¾ in.; breadth, 1¼ in.; while the depth was hardly appreciable. The colour was a dull yellowish-white and the vascularity slight. There were five small nodules in the axillary region, which were also diminishing in size and vascularity, though perhaps not so much as the larger growth. The patient's general health and nourishment were satisfactory; and as she was an intelligent and reliable woman, and interested in her own case, I allowed her to go to Bridge of Allan for a change, and asked her to report herself from time to time. This she did, and without going into a detailed account of her condition on each visit that she made I may say that the local improvement continued, and my note on Oct. 12th, just four months after the operation of oöphorectomy, was as follows: "On examination of the left breast the condition of the tissues is favourable. The most remarkable feature of the case is the yellow fatty look that the former thick bar of cancerous tissue above the scar of the incision for removal of the breast presents. It is to my mind the most striking feature of the case. The cancerous tissue has been reduced to a very thin layer and is in no way raised above the surrounding skin. In fact, the whole surface is smooth and level, and to the naked eye it seems as if the skin at this part had a yellow look. So distinct is this that one could easily trace out the outline of this yellow-coloured tissue. At places the surrounding skin seems pushing its way into the yellow mass and the processes of bluish cicatricial tissue are to be noted. The yellowish nodules at the axillary end of the incision are still apparent from their colour, but they seem thinning out. The whole of the tissues on the chest wall are more movable and the surrounding skin has a clear and healthy look. The scar of the former ulcer above the mammary excision cicatrix is sound and no new nodules are at present observable. The patient expresses herself as feeling very well and looks so. She is taking four 5-gr. tabloids of thyroid extract daily." I need not trouble with any further detailed account of this patient than to say that eight months after my operation all vestiges of her previous cancerous disease had disappeared, and that I am able to show her with a sound cicatrix and healthy thoracic tissues, and that she is apparently in excellent health.

(To be concluded.)

NOTE ON EUCAINE AS A LOCAL ANÆSTHETIC.

BY ROBERT BRUDENELL CARTER, F.R.C.S. ENG.,
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THE *Medizinische Novitäten* for June quotes from the *Aerztlicher Central-Anzeiger* a condensed account of a paper read before the Hufeland Society of Berlin by Dr. Gaetano, of Vinci, Messina, on the properties of "eucaine" as a local anæsthetic, and this account induced me to make further inquiry into the subject. I have since seen an English summary of the paper in which the author is described as "Dr. G. Vinci," and I do not know which of the two versions of his name is correct.

I am informed that eucaine is not derived from the vegetable kingdom, but that it is a laboratory product which can be prepared in any quantity at moderate cost. I am also informed that its proper designation is "methyl-benzoyl-tetramethyl-oxypiperidine-carboxylic-acid-methyl-ester," a combination which seems to open a door, either in speech or writing, for infinite possibilities of error. The trivial name "eucaine" is comparatively free from this objection; but I neither know by whom it was invented nor what idea, if any, it is intended to convey. It is apparently compounded of the prefix "eu" and of the last syllable of "cocaine," and if so may perhaps be regarded as a first cousin of "chlorodyne." But "eucaine" seems to have no meaning, while "green pain" has, at least, the semblance of one.

Dr. Gaetano, or "Dr. G. Vinci," whichever it may be, described eucaine as possessing the properties of cocaine as a local anæsthetic, but as being less toxic and as having no effect upon the pupil. The last statement seemed to me to be of practical importance, because a dilated pupil is an impediment to the performance of many operations upon the eye. It has long been my practice to neutralise the dilating effect of cocaine by a preliminary application of eserine, but this course is not entirely satisfactory. It is difficult to secure the precise degree of effect which is desired, while the eserine dilates the vessels of the iris and occasions free bleeding when they are incised. It also renders the iris tissue comparatively rigid, so that it is less easily drawn out of the anterior chamber.

I obtained a supply of a 5 per cent. watery solution of eucaine hydrochloride from Mr. Rogers, of 327, Oxford-street, and used it last week for a cataract extraction, the patient being a woman. Before my arrival the nurse had applied a drop of the solution within the lower lid every five minutes for six times, and I found the eye perfectly insensitive. The pupil was unaffected and acted readily to light. There was scarcely any bleeding from the cut iris; there was perfect quiescence of the muscles and there was no pain. I asked the patient whether she had felt anything and she replied, "I felt something moving about my eye but it did not hurt me." There was no pain afterwards and healing was uninterrupted. I have since successfully used a single application of the same solution as a preliminary to the removal of a foreign body embedded in the cornea.

In the original paper it is said that eucaine has been successfully used in dentistry and laryngology, and that solutions may be injected hypodermically without injury. My first experiments will certainly induce me to use it again, and for tenotomies as well as for iridectomy or extraction. It is said that the solution above mentioned may be sterilised by boiling, again and again if necessary, without undergoing decomposition or suffering any deterioration of quality.

Harley-street, W.

ON THE ORGANIC MEMBRANES AS INSULATORS.

BY SIR BENJAMIN WARD RICHARDSON, M.D., F.R.S.

UP to the present time we have been content to look upon a membrane of the body, the pericardium, the periosteum, the capsule of the kidneys, and any structure of the kind, as a covering of the organ wrapped up in it, that holds the organ, as it were, in a mould, supports it in its place, allows it to glide, and by virtue of the fluid secreted keeps it distinct and separate. There can be no question that these grand functions belong to the membranes, which have ever been to us structures of the utmost moment. I have watched the influence of many substances upon them; have noted their conditions during the various stages of life, and have examined their degenerations during disease and after death. But I have recently made observations on these structures—membranes—which, if I am right, give them a new value, or rather a value that has not before been appreciated. It seems to me they are *electrical insulators*, and by their presence confine and render useful the vital force that is developed in the organs they surround. My first observations leading to this conclusion were conducted on the nervous membranes—those that envelop the cerebral convolutions and the spinal cord; from these I passed on to the other membranous envelopes to find that they all have a common quality.

I obtained an electrical battery consisting of twenty-four small cells, so arranged that one cell could be put on at a time, or the whole or part of the whole as might be required. I commissioned Messrs. Faraday of Berners-street to construct for me a delicate galvanometer, the needle of which moved in a millimetre circle and certified, with accuracy, the force of the current transmitted. I fixed to one pole of the battery a conductor which was connected to the galvanometer, and from the opposite pole of the battery attached a platinum conductor of the same length and carried it also to the galvanometer. This last conductor I divided in the centre and joined the end of the portion from the galvanometer to a platinum disc that was secured by its under surface to a porcelain slab. The other half of the conductor (from the battery) was allowed to remain free with a probe-like end which could be used at any moment to touch the platinum disc and complete the circuit or to touch any substance laid

upon the disc that would either conduct or break the current. The apparatus when complete acted perfectly, and the minutest current could be detected. Sometimes I used the battery with a single cell, sometimes with more than a single cell, while, as a general rule, I used the whole power of cells, twenty-four in number. When all was in order and the battery in action the platinum probe was brought into direct contact with the platinum disc, and the current was proved by the deflection of the needle on the galvanometer. After this, the needle being steadied and set, a piece of some thin membrane was laid on the platinum disc, and its conduction or resisting power tested with the results to be described.

Dura mater.—A disc was cut from the dura mater of a dead sheep, and, after being thoroughly cleaned, was laid on the platinum disc. The probe like end of the conductor from the battery was then pressed upon it when the current was found to be completely intercepted. The insulation was, in fact, perfect. A piece of membrane covering the spinal cord at its upper part, stripped off and carefully cleaned, was laid on the platinum disc, and the probe end of the conductor was put upon it. It resisted the current as effectively as a layer of indiarubber or guttapercha or a fine slice of fatty tissue could have done.

Periosteal membrane.—From off a bone a bit of periosteum detached, cleaned, and laid on the platinum plate insulated perfectly.

Pericardial membrane.—This membrane was tested in the most careful manner and yielded the same result.

Endocardial membrane.—There was more trouble with endocardial membrane than with pericardial, for the structure is very fine and strongly adherent to the underlying substance. But when cleanly dissected out it was found to be as perfect an insulator as the pericardium, so that the heart structure proper is apparently enclosed in two layers of insulating membrane. The endocardial lining of the arteries showed the same character; the valves of the heart cut out entire did not absolutely insulate, but the membrane covering them on either side did.

Peritoneal membrane.—Portions of peritoneal membrane were taken from various parts—from the liver, from the spleen, from the intestine, and from the bladder. When the membrane was derived from any of those sources and scrupulously cleaned and spread out on the platinum disc it resisted just as the other membrane had done and proved itself an insulator.

Capsule of the kidney.—The readiness with which the capsule of the kidney can be detached renders it a good specimen for experiment, and it was freely used. It proved to be a perfect insulator, and we may consider that the kidney as it swings in its place is completely insulated.

Lining membrane of an egg.—The thin lining membrane of an egg detached from the inside of the shell, when tested, showed the same insulation.

It was a question whether mucous membrane in the same manner as serous membrane resists the current. To test this fact mucous membrane was taken from the side of the tongue of a sheep, from the lining of the intestinal canal, and from the lining of the trachea. The membrane had to be carefully cleaned, with the greatest attention to detail, and when it was laid out in its pure character of membrane it also insulated.

In the above, physiological observations have alone been named, but there are pathological ones connected with the subject of equal moment. The absorption of water by membrane, water being a conductor, may interfere with insulation in the case of dropsies, and some deposits may also interfere. But these and other points remain for investigation.

SOCIETY FOR IMPROVING THE CONDITION OF THE LABOURING CLASSES.—The fifty-second annual meeting of the Society for Improving the Condition of the Labouring Classes was held at No. 8, Southampton-row on June 26th, the Right Hon. Evelyn Ashley presiding. The report showed that £1000 of the loans raised for the purposes of the society's work had been paid off during 1895 and the early part of the present year. The committee were at present considering the establishment of a boarding house for young men. During 1895 there was an average population of 573 in the society's buildings, and there were five deaths. The income exceeded the expenditure by £960.

A THERAPEUTICAL BLUNDER—BEEF AND MALT WINE.

BY FREDERIC C. COLEY, M.D. DURH.,
PHYSICIAN TO THE HOSPITAL FOR CHILDREN, NEWCASTLE-UPON-TYNE, AND TO THE NORTHERN COUNTIES HOSPITAL FOR DISEASES OF THE CHEST.

THERE are various preparations on the market professing to be made up of extract of beef, extract of malt, and port wine. If this combination were believed in only by the uneducated public one need not be surprised. It is just the sort of therapeutic blunderbuss which might be expected to take the fancy of those who do not know better; but when we find members of the medical profession recommending such a conglomeration it is time to draw attention to the absurdity of it. It is, in fact, difficult to imagine a more thoroughly unscientific combination than the one in question. Let us consider the ingredients separately and see whether they are well calculated to act together.

Extract of beef we all know is not food. Liebig himself proclaimed that. It has its use however. First and foremost, it is valuable because of its meaty flavour, on account of which many patients can take with it bread or lentil flour, &c., which would otherwise be unacceptable. It is also a harmless stimulant. Lastly, people who cannot take tea or coffee at supper time for fear of insomnia, and are liable to biliousness when they substitute cocoa, often find extract of beef (or some similar preparation) very useful because it decidedly favours sleep. To combine such a preparation with port wine shows a complete ignorance of its real uses. The slight stimulating effect of the very small quantity of the extract contained in an ordinary dose of the wine would be wholly inappreciable in the presence of the alcohol. It is plain that the only conceivable motive for such a combination must be the erroneous notion that extract of beef is capable of doing duty as a food.

Extract of malt is a valuable preparation, but when I prescribe it I like to know how much of it my patient will get. I doubt very much whether an adequate dose of it can be contained in a wineglassful of the very mobile fluid which is sold as beef and malt wine. Nor do I see any reason to suppose that its powers for good are likely to be improved by mixing it with an unknown proportion of an alcoholic liquid.

Lastly, we have to consider the port wine. I shall not here express any opinion as to the therapeutic value of genuine port, but I believe that those of my professional brethren who have the strongest faith in its virtues most earnestly insist on the necessity of securing the real fermented juice of the grape. It is notorious that much spurious wine is in the market, and that it is extremely difficult, with the greatest care, to obtain an undoubtedly genuine article even when a high price is not grudged. I do not know where the makers of beef and malt wine get their supplies, so I am not in a position to make any positive statement about the genuineness (or otherwise) of their "vintage," but I may mention some facts which appear to me to bear on the probabilities of the subject. The proprietors of the best known (because most extensively puffed) beef and malt wine have twice sent out circulars to the medical profession offering debentures at a high rate of interest. This was done avowedly with the design of interesting the profession in the sale of the article. I have myself received from the same company at different times more than a dozen sample bottles of their wine, and I have no reason to suppose that I have been more liberally treated than the rest of my brethren. I simply ask, what must be the profit on the sale when it is able to cover the cost of this enormous distribution of samples and of the profuse advertising which is done, and then leave enough to pay an exceptionally high interest on the debentures and dividends to the shareholders presumably at a still higher rate? I suggest no inference from these facts, but "I speak as unto wise men; judge ye what I say."

If we believe that any of our patients are likely to derive benefit from malt extract by all means let us prescribe it—

in doses such as we know to be adequate. If we are disposed to use extract of beef (or any similar preparation[1]) let us remember that it is not a food and that it will therefore be worse than useless if it is so combined as to make it incapable of serving the only purposes for which it is really adapted. It must be agreed that we are recommending a very doubtful investment of money when we advise a patient to buy a bottle containing an unknown quantity of extract of beef and extract of malt dissolved in a liquid of problematical composition called port wine. From the £ *s. d.* point of view the debentures above mentioned are a much better speculation. But they are offered to the medical man rather than to the patient.

Newcastle-on-Tyne.

ALBUMOSURIA IN CHRONIC KIDNEY DISEASE.[2]

By A. LOCKHART GILLESPIE, M.D., F.R.C.P. EDIN.,
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THE condition of peptonuria, as first described by Hofmeister, has long been recognised to be really albumosuria in a great number of cases, with or without the presence of peptone, properly so called, in addition. Hitherto the presence of these bodies in the urine has been regarded, first, as evidence of suppuration in the body, wherever situated, if the conditions were favourable to the absorption by the blood of the lower proteids of the pus, or, in the second place, as evidence of infective disease, especially if accompanied by pyrexia. For example, von Jaksch found peptone in the urine in cases of pneumonia during the stage of softening, in purulent meningitis, in phthisis with suppuration, and in the latter stages of severe scurvy. Maixner and Pacanowski have shown that it may occur in ulceration of the intestine, while according to Fischel it is the normal concomitant of the puerperal state. Shortly, peptonuria and some forms of albumosuria occur when there is either well-marked suppuration or rapid destruction of proteid material in the body. The appearance of albumoses in the urine during the course of fevers is, of course, due to the same cause—the rapid destruction of proteids. Another explanation of the appearance of these bodies in the urine is afforded by the fact that many micro-organisms have the power of changing albumin and globulin into proteoses and peptones. Any process in the body which is due to the presence of such organisms must throw into the blood stream the products of their action on albumins, and these products will be at once excreted by the kidneys.

Albumosuria, strictly so called, has been recognised by many observers in osteomalacia, dermatitis, mental derangement, measles, and scarlet fever, but competent authorities, such as Osler and Roberts, doubt if the occurrence of albumose in the urine is of much clinical significance. The presence, however, of any form of proteid in the urine can never be regarded as a light matter, whether the proteid discovered be passed in that form or be changed in its transit from the kidney. In this connexion it is right to state here that proteoses or peptones in the urine may be either secreted as such by the kidney, or, secreted as albumin by that organ, may become altered during their passage down the urinary tract by bacterial action or by digestion. In either case the kidney must be at fault. It is hardly necessary to add that all testing for albumoses or peptones must be done at once and on a perfectly fresh specimen of urine. A trace of albumose in a urine containing a considerable amount of albumin or globulin, especially if the urine be slightly stale, means nothing. Much albumose or peptone in an absolutely fresh urine with or without albumin signifies their excretion by the kidney. It is impossible that digestion can go on in the bladder or after the urine is passed so quickly, whether it is due to bacterial action or to unorganised fermentation, as to convert more than an infinitesimal portion of albumin into proteoses or peptones. In those cases in which no coagulable proteid can be detected the lower proteids present must be excreted *in propriâ personâ* by the kidney. This must be so because in digestion experiments, or in experiments on the digestive action of micro-organisms, a long time invariably elapses before all the coagulable proteid in the test solution is acted on. Several different forms of albumose may be found in the urine, but of these hetero-albumose (Bence-Jones's albumin) and deutero-albumose are the most common. Dysalbumose may also be present, and proto-albumose if carefully looked for, although Dr. Sidney Martin, writing on this subject in the last edition of "Quain's Dictionary of Medicine," states that proto-albumose has never been obtained from the urine. Dr. Martin sums up his article as follows: "According to our present knowledge it may be said that the chief clinical significance of a large amount of peptone or albumose in the urine is an extensive cell (and proteid) disintegration in the body, in many cases indicating pus formation."

In the Edinburgh Hospital Reports, vol. ii., I published the results of analyses of the urine in a case of chronic nephritis. The patient, who was five years of age, was under the care of Dr. A. S. Cumming and suffered from all the symptoms of chronic Bright's disease. Owing to the urine yielding some unusual reactions when tested for albumin, Dr. Cumming asked me to undertake its analysis. There is no need here to reproduce any of the facts of this case which were observed, save to mention that the amount of deutero-albumose recovered was always greater than that of the proto-albumose. This latter was certainly present. The albumoses reached on one occasion the very considerable amount of 0·247 per cent., the coagulable proteid for the same day being 0·331 per cent. After about a month albumoses disappeared from the urine, shortly after tincture of strophanthus had been exhibited. As they disappeared the amount of serum-globulin in the urine became larger. Dr. Halliburton has objected[3] to the use of Devoto's method of separating albumoses from fluids which also contain coagulable proteids, referring especially to some analyses which I had made of the fluids from various serous effusions. In this case, however, such criticism is inapplicable, as the urine gave the tests for albumoses before boiling with acetic acid, and further the method which he now decries, although recommended in his text-book on "Pathological Chemistry," failed to show the presence of any of the lower proteids after a certain date, even when treated in identically the same way and although coagulable proteids could still be separated out. If the albumoses present or recovered by this method are small in amount it may be doubtful whether they were originally in the urine or were produced in the course of the analysis; when they are present in large quantity Devoto's method is by far the best. One precaution should be taken, however, and that is not to add the acetic acid until the urine has been brought to the boil, and then at once to let it cool. In this way there is very little chance of the acid modifying the nature of the proteids present.

In June, 1895, I was asked by a woman to prescribe for symptoms of congestion of the liver. She was about fifty-six years of age and complained of nausea after food, headache, and a quivering movement of objects before her eyes. On examination it was found that pressure over the liver caused pain, the face was puffy, the pulse inelastic, the heart sounds normal, the sight, especially of the left eye, was weak, and insomnia was of frequent occurrence. From the appearance of the face some affection of the kidneys suggested itself to me, but examination of the urine failed to reveal the presence of albumin; there were no tube casts and the specific gravity was 1013. Treatment was therefore directed toward improvement of the action of the liver, especially as the patient had already suffered from gout, whilst chloralamide was given for the sleeplessness. A fortnight later her condition was much improved, but she was very lethargic and the eyesight was still defective. I sent her to Dr. George Mackay, who reported the presence of hæmorrhagic retinitis in the left eye and inquired especially whether there was no albuminuria. A further examination of the urine yielded the following interesting particulars. Its specific gravity was 1022 and it contained 9 per cent. of urea, the patient being on a milk diet. Cold nitric acid gave no precipitate, showing that there was no albumin or hetero- and proto-albumose. Picric acid yielded a cloud disappearing on the application of heat—i.e., albumose or peptone. Saturation with ammonium sulphate caused a precipitate soluble in water.

[1] Dr. Coley refers exclusively here, we may take it, to those preparations which contain simply the constituents of beef dissolved out on extraction with hot water.—ED. L.

[2] The analyses for this paper were performed in the Research Laboratory of the Royal College of Physicians of Edinburgh.

[3] Journal of Pathology and Bacteriology, August, 1895.

Saturation of the dissolved precipitate with sodium chloride caused no precipitate. The only proteid contained in the urine of this patient at that time was, therefore, deutero-albumose and possibly some peptone, but of this last I am not certain. The urine gave a strong xanthoproteic reaction. A diuretic mixture was prescribed containing acetate of potash, lactate of strontium, and decoction of broom tops, and the milk diet was continued. Rapid improvement followed, although the urine a month after still contained a trace of deutero-albumose. I did not see her again until February, 1896, when she complained of much the same symptoms as nine months before. A fuller examination of the urine was made on this occasion and some changes were found to have occurred in it: 70 c.c. were boiled, with a drop of acetic acid added at the boiling point, and were then filtered through a weighed filter paper, which was washed and dried, but the paper was of the same weight before and after, so that no albumin or globulin was present. Tested with Esbach's tube the proteids were 0·025 per cent., the precipitate being soluble on heating. From the filtrate of the 70 c.c. used in the search for coagulable proteids there were obtained a trace of proto-albumose, some hetero- and dys-albumose, some deutero-albumose, and a distinct flocculent precipitate of both the lower proteid bodies described by Pekelhaering on the addition of ammonia to the hot saturated ammonia sulphate solution after separation of the other albumoses and subsequent treatment of the filtrate after removal of the flocculent precipitate which formed with acetic acid. This case, therefore, presents all the symptoms of a slight chronic nephritis, probably of gouty origin, associated with well-marked albuminuric retinitis, but without the presence of either tube casts or albumin in the urine. Whatever the source of the albumoses may be, the fact still remains that their presence must be regarded as evidence of some kidney affection. A case such as this suggests a reason why symptoms of chronic kidney disease may persist without albuminuria, or at any rate may persist for some time without albumin being discovered. On five separate occasions careful examination failed to detect the slightest trace of it; trichloracetic acid was used in the third to make absolutely sure, but the resulting precipitate was wholly soluble in boiling water.

Another case is as follows. A woman aged about fifty-eight years, with a very gouty history, had had some albumin in the urine for two years, but no tube casts were ever discovered. In January, 1895, when I saw her for the first time, no symptoms of Bright's disease, except some albuminuria, were present. The pulse was normal, the arteries were soft, and there was no hypertrophy of the heart or œdema of any part of the body. The patient had been taking a milk diet for twelve months with much purgative medicine and was considerably run down. A more generous diet and a diuretic mixture similar to the one above mentioned rapidly brought about an amelioration in the symptoms complained of—i.e., neuralgia and weakness—while the amount of albumin diminished from 0·075 per cent. before breakfast and 0·2 per cent. after breakfast to 0·037 per cent. and 0·05 per cent. respectively. The albumin was estimated by means of Esbach's tubes. The presence or absence of proteoses was not investigated. In January, 1896, I had another opportunity of observing this patient. In June, 1895, she had an attack of right-sided hemiplegia, but without losing consciousness. Slow but steady improvement followed, interrupted, however, by two attacks of acute gout. The physician attending the case could find only traces of albumin in the urine throughout, while sometimes it was entirely absent. Iodide of potassium and colchicum were given. When I saw her again the right side was still weak, but otherwise she was in fairly good health. There was no sign of heart disease. On testing the urine, however, a very unusual condition presented itself. This is hardly the place to go into a detailed statement of the different analyses performed, and only a short account of the results will be given. Owing to the interest of the case full quantitive estimations of the proteids were made.

Analysis of Day's Urine, Total Amount 2800 c.c.

	Per cent.
Total solids	2·28
Ash	0·94
Organic solids	1·34
Total nitrogen (Kjeldahl)	0·492
Nitrogen in filtrate after trichloracetic acid	0·462
Nitrogen removed	0·03
	(or 0·187 per cent. of proteid)
Proteid precipitated by alcohol	0·19
Albumin, dried and weighed	0·037
Albumoses recovered and weighed	0·098
Albumoses—	
Dysalbumose	0·034
Hetero-albumose	0·027
Proto-albumose	0·012
Deutero-albumose	0·025

There was also a trace of Pekelhaering's ammonia albumose—0·015 grm. in 2000 c.cm., or 0·00075 per cent.

A few days afterwards another sample was examined. The limbs of the patient had been massaged for a week and the back, especially over the kidneys, for the preceding three days. The results were:—

Total Urine 2194 c.c.

	Per cent.
Total proteids	0·105
Coagulable proteids	0·079
Proteoses	0·026

It will be noticed that the amount of urine is diminished, the diet remaining the same, the coagulable proteids are increased, and the proteoses diminished in quantity. The patient was improving, but five days afterwards had a smart attack of diarrhœa. On this day the urine was kept, but naturally some of it was lost. The quantity obtained measured 1450 c.cm. Analysis yielded:

	Per cent.	
Serum albumin	0·117	0·16 per cent.
Serum globulin	0·043	
Albumoses	0·06	

All the varieties of albumose already mentioned were identified, hetero-albumose being present in the largest quantity. A fortnight later a whole day's urine was again analysed. As the colchicum had caused some gastro-intestinal disturbance a mixture containing lactate of strontium, acetate of potash, and decoction of broom tops had been substituted some days before.

Total Urine 2546 c.c. Reaction Faintly Alkaline.

	Per cent.
Total solids	2·78
Ash	1·18
Organic solids	1·6
Serum albumin, 0·116 per cent.	0·176
Serum globulin, 0·06 per cent.	
By trichloracetic acid, 0·181 per cent.	
Total proteids—Esbach	0·21
Alcohol	0·4
Albumoses—	
Dysalbumose	0·0051
Hetero-albumose	0·0018
Proto-albumose	0·0025
Deutero-albumose	0·098
Total	0·1074

Tested by Kolisch and Barian's method no trace of histon could be discovered. The amount of proteid in this sample was therefore considerably above that in the previous ones, the large amount of deutero-albumose being noteworthy. After three weeks' treatment with the mixture mentioned above the blood was examined before breakfast. At that time indications of an impending attack of gout manifested themselves. The red corpuscles numbered 6,640,000 and the white 17,600, so that the red were to the white as 377 to 1. The colchicum mixture was again given, and after three weeks, all symptoms of gout having speedily vanished, the blood was again examined at the same period of the day; the red corpuscles then numbered 4,384,000, and the white 4080, so that the red were to the white as 1074 to 1. The last examination of the urine corresponded with the gouty period and showed an increase of albumose. A further examination of 2395 c.c. of urine obtained after colchicum had been given for ten days exhibited a decrease of coagulable proteids to 0·054 per cent., while proteoses were present in much smaller amounts, together reaching only 0·009 per cent.

In this case the large amounts of urine available allowed the separation of the different proteids to be carried out with great ease. The trichloracetic acid method was used

throughout as a check on Devoto's procedure. The result of the analysis of the urine in this case corroborates those obtained from the preceding ones. By the ordinary rough methods of examination a small quantity of albumin could be detected, but the variability of this was disconcerting when coupled with absence of the ordinary symptoms of Bright's disease and the continued failure to find any tube-casts. The urea, I should have stated, was normal in amount when the nature of the diet was considered. The urine when tested was acid except on one occasion only. On the addition of hydrochloric acid it had no digestive action on fibrin at 38° C.

I am at a loss to explain the exact significance of the presence of proteoses in the urine of such cases. In none of the three patients whose cases have been described was there any possibility of pus being present in any part of the body. The only possible solution which occurs to me at present is that there may have been an excessive production of leucocytes and a consequent increased destruction of these cells in the blood of the last two patients—a condition which is said by Horbaczkewsky to be common in gout. The breaking up of the leucocytes and the setting free of nucleic acid from the nucleo-albumins might in some instances go further and bring about the presence of albumoses in the blood. This is a point to which I propose to devote attention in the future, on coming across a case suitable for such investigations as may be necessary. The result of the examination of the blood in the last case points to some cause connected with the leucocytes being at work.

The only other case to which reference will be made here is that of a young man twenty-two years of age, suffering from what appeared to be cyclical albuminuria. The urine contained the faintest trace of albumin before breakfast and 0·05 per cent., by Esbach's tube, after it. Tested again in three weeks there was no albumin before and only a trace after breakfast. Four weeks later the urine gave (*a*) no precipitate either with nitric acid or on boiling; (*b*) a fine whitish granular precipitate with picric acid, which took some time to form and entirely cleared up on heating, but reappeared on cooling; and (*c*) only a faint cloud on saturation with ammonium sulphate. The proteid present was probably pure peptone with a trace of deutero-albumose. At first it was present both before and after breakfast; in a short time it could only be discovered after breakfast, and a fortnight later it had entirely disappeared. The patient is now in good health and his urine is normal. The important fact, which may be said to be determined by these cases, is that albumoses occur in the urine apart from suppuration or any marked evidence of excessive proteid destruction. It is probable, however, that some increased cell destruction was taking place, and I believe that the leucocytes will be found eventually to be one of the causes of this phenomenon. In this connexion reference might be made to a paper by Kolisch and Burian,[4] who found histon in considerable quantities in the urine of leukæmic patients. In almost all the conditions under which albumoses have been hitherto found in the urine excessive proliferation of the leucocytes in the body is present. Further research is necessary before we can say definitely whether leucocytes and albumosuria are related to one another, or whether albumosuria, in such cases as are detailed above, is of as grave significance as the presence of coagulable proteids in the urine.

Edinburgh.

ON THE RELATIONS OF TURACIN AND TURACOPORPHYRIN TO THE COLOURING MATTER OF THE BLOOD.[1]

BY ARTHUR GAMGEE, M.D. EDIN, F.R.S.,
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IN a recent paper read before the Royal Society I have shown that the intense absorption band in the extreme violet, which is observed by means of photography in the spectrum of highly diluted solutions of hæmoglobin and its compounds, is (with slight changes in its position) exhibited by certain of the derivatives of the blood colouring matter—e.g., by hæmochromogen and the compounds of hæmatin and by that remarkably interesting coloured but iron-free derivative of the latter body, hæmatoporphyrin.

Having found that no organic body which I had examined (not even such as the colouring matters of alkanet-root or picro-carmine, which present in the visible spectrum absorption bands not unlike those of the blood-colouring matter) exhibits an absorption band occupying the position, or possessed of the remarkable intensity, of the extreme violet band under discussion, it seemed as if the latter owed its origin to a group of atoms existing in, and perhaps characteristic of, the blood colouring matter, which remains intact in certain of the products of decomposition of the complex hæmoglobin molecule, whereas it does not exist in certain other of the derivatives of the hæmochromogen or hæmatin moiety of the molecule, such as bilirubin and urobilin.

It occurred to me that it would be extremely interesting to determine whether turacin, which, as Professor Church first showed in 1869,[2] presents two absorption bands in the visible spectrum which have a remarkable resemblance to those of oxy-hæmoglobin, would exhibit in the extreme violet or the ultra-violet an absorption band similar to that of the compounds and certain of the derivatives of the blood-colouring matter. To my surprise I discovered that solutions of turacin in caustic soda or ammonia, so dilute as to be almost colourless, and to exhibit when a stratum 10 mm. thick was examined only a faint shading in the position of the stronger of the two turacin bands in the green, absorbed the extreme violet and ultra-violet rays of the spectrum precisely as highly diluted solutions of the acid compounds of hæmatin (e.g., hæmatin hydrochloride dissolved in glacial acetic acid). My first observations were made by allowing the spectrum of a beam of sunlight reflected into the dark room from the mirror of the heliostat, and which had passed through the solution of turacin, to fall upon a fluorescent screen of the double cyanide of platinum and barium, when an intense absorption band at the commencement of the ultra-violet was visible to the naked eye. I subsequently confirmed this observation by taking a series of photographs of the spectrum, employing solutions of turacin of various degrees of concentration. The identity of the spectrum of highly diluted solutions of hæmatin hydrochloride and of turacin is so complete that it is impossible to distinguish from the photographs of the spectrum which substance has been employed.

Solutions of turacin in caustic soda or ammonia, so dilute as to be almost colourless, and exhibiting, when a stratum 10 mm. thick is examined, only the faintest shadow in the position of the stronger of the two turacin bands in the green, exhibit an intense absorption band, which encroaches more and more on the ultra-violet as the strength of the solution increases. With a solution just permitting the recognition of both the turacin bands—the stratum examined being 10 mm.—the band extends between *h* and M, the most intense absorption occurring between *h* and L. The less refrangible border of the band is sharply defined, whilst the more refrangible border is less definite. As the solution is diluted the band becomes narrower, through less and less of the ultra-violet rays being absorbed. In highly dilute solutions the band, which is still intense, absorbs both H and K.

Turacin, therefore, like the acid compounds of hæmatin, exhibits an absorption band, which is exactly on the boundary of the ultra-violet proper, and which extends further and further into the ultra-violet as the concentration of the solution increases.

The identity of the spectrum of turacin with that of the hæmatin compounds was so complete that it led me to surmise the existence of a close relationship between the copper-containing body and the colouring matter of the blood. Although I had ever since their publication been perfectly familiar with Professor Church's first researches, his second investigation, of which the results were published in 1892,[3] was unfortunately unknown to me. Without any knowledge of this work, in making an oral preliminary communication of my first results to the International Physiological Congress at Berne, in September, 1895, I expressed my conviction that turacin contains the same atomic group which is the cause of the extreme violet and ultra-violet

[4] Zeitschrift für Klinische Medicin, Band xxix., Heft 3-4.

[1] A paper read before the Royal Society on March 12th, 1896.

[2] A. H. Church: Researches on Turacin, an Animal Pigment containing Copper.—Proceedings of the Royal Society, vol. xvii., 1869, p. 436; Transactions of the Philosophical Society, vol. clix., 1869, pp. 627-636.

[3] Ibid., vol. clxxxiii., 1892, A, pp. 511-530.

absorption band in the spectrum of highly dilute solutions of hæmoglobin and its derivatives, and I predicted that by removing the copper from turacin I should be able to obtain a turaco-porphyrin similar to the body which results from the removal of the iron from hæmatin. It was only after I had performed the experiments necessary for the elucidation of this point, and had obtained results corroborating Professor Church's discovery of turaco-porphyrin, that the fact of his having anticipated me in this matter was brought under my notice.

The results of my special work offer, however, an independent and additional confirmation of his results. I have found that when turacin is treated with strong sulphuric acid the resulting turaco-porphyrin presents in the extreme-violet an intense absorption band, which in position and characters is identical with that of hæmatoporphyrin, obtained by the action of concentrated sulphuric acid or pure hæmatin hydrochloride. In solutions of extreme dilution this band occupies the space between lines *h* and H. If the solution be slightly more concentrated K is absorbed, and with increasing concentration of the solution the absorption of the ultra-violet extends more and more.

Dr. Archibald Garrod and Mr. Gowland Hopkins, who first brought under my notice Professor Church's researches on turaco-porphyrin, have communicated to me the results of their own observations, which show that alkaline solutions of turaco-porphyrin exhibit, in respect to the absorption bands in the visible spectrum, slight differences from hæmatoporphyrin, though the identity of the spectrum of acid solutions of the two bodies is complete. The facts which I have placed on record in this paper point, however, to the essential identity of turaco-porphyrin and hæmatoporphyrin, and when taken in connexion with the identity of the ultra-violet spectrum of turacin, and of the acid hæmatin compounds, appear to me to establish that turacin contains the atomic group, which is the cause of the characteristic extreme violet and ultra-violet absorption exerted by hæmoglobin, its compounds, and principal derivatives.

St. Leonards-on-Sea.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON THE OCCURRENCE OF EXTERNAL HÆMORRHAGE IN ASSOCIATION WITH ECTOPIC PREGNANCY.

BY JAMES OLIVER, M.D. EDIN., F.L.S., F.R.S. EDIN.

A FECUNDATED ovum may develop in some structure in the pelvis outside the uterus and may even arrive at maturity without exciting during the recognised period of gestation—viz., nine months—any symptom different to that of an ordinary pregnancy, there being throughout this period complete amenorrhœa. External hæmorrhage is, however, so frequently observed in association with ectopic pregnancy, whether the ovum is enabled to complete its development or dies at a more or less early period of its existence, that it constitutes a common symptom of the disorder. When the impregnated ovum is lodged in the Fallopian tube the hæmorrhage may come either from the tube or from the uterus, and it is highly probable that in the majority of cases it proceeds from both situations. About the twentieth day after conception the chorionic villi begin to become vascular, but before this occurrence the presence of the segmenting ovum has so stimulated the structure harbouring it that the blood-vessels in and underlying the mucous lining of the Fallopian tube have begun to increase in size. As these vessels increase in size the tendency is for the unembedded portion of their walls to become more and more thin, and towards the ovarian and uterine poles of the ovum, where they are virtually unsupported, they rupture on the slightest provocation. The ovum is grasped by the tube, which encircles it like a belt, and at this level the maternal vessels are so supported that they seldom rupture spontaneously. The blood which flows from the neighbourhood of the ovarian pole of the ovum will, if unimpeded, be poured into the peritoneal cavity, whilst that proceeding from the uterine pole will flow externally. When the blood is derived from the Fallopian tube it may make its appearance externally as early as the twentieth day after impregnation. During the evolution of an ectopic pregnancy the uterus usually becomes somewhat enlarged and membranous shreds or pieces are occasionally expelled from this organ. The extrusion of these membranous structures is generally accompanied by a greater or less amount of hæmorrhagic discharge which comes from ruptured vessels in the mucous lining of the uterus itself. As early as the tenth or twelfth weeks of an ectopic gestation these deciduous membranes may be expelled, but independently of their existence blood may be poured out by the vessels of the uterus as early as the sixth or seventh weeks. Correlatively with the increase in the size of the uterus the venous sinuses in the lining membrane of this organ become enlarged and, receiving no special support in consequence of the absence of any opposing structure in the cavity of the uterus, they tend readily to rupture.

Gordon-square, W.C.

A UNIQUE EXPERIENCE IN ETHER ADMINISTRATION.

BY R. W. CARTER, M.D. CALCUTTA.

ON June 16th, 1896, I administered ether to a patient for the operation of vaginal pan-hysterectomy. She was a strong, big woman aged fifty-four years, of moderately sober habits. The operation lasted one hour and forty-five minutes counting from the commencement of the administration, and the apparatus used was a Clover with Salamons ether. The patient was in Trendelenburg's position. Some slight erythema was visible over the neck and chest at the commencement of the administration, but it soon passed off. Her colour and pulse were good and there was but slight perspiration. Consciousness was restored about half an hour after she was put to bed. There was no vomiting for some time but some slight sickness later. The quantity of ether used in all was four ounces, and throughout the operation there were no untoward symptoms although bleeding was fairly free. I commenced giving two ounces of ether at 9.57 A.M. The patient was very violent, and as she would not take it quietly she was held down and the indicator quickly turned to 3, when she was completely subdued and anæsthetised in two and a half minutes from the commencement, the indicator being kept between 2 and 3 for a short time at the outset of the operation. At 10.13, sixteen minutes from the beginning, the residue of the fluid in the body of the inhaler looking milky, two ounces more of ether were added, and from that time till the completion of the operation (a space of one hour and twenty-nine minutes) no more was added; thus from 11 A.M. or earlier till 11.42 there could scarcely have been any ether—my conviction is that there was *none*,—yet during the whole of this time she was kept in an anæsthetic condition (or partially asphyxiated as some might wish to call it); at all events, she was as completely insensible to pain as if she were under the effects of ether or chloroform for an hour with merely taking in her own expired carbonic acid. It was interesting to watch her colour and pupils from the effects of applying and withdrawing the inhaler; in the first condition the pupils would gradually dilate, the colour of the cheeks and lips becoming darker, with slight frothing from the air passages, while on its removal a more normal state of things was restored. But she was not allowed to come out of her anæsthesia so long as the operation was going on. I knew I had no ether in the apparatus, and it occurred to me during the administration that could I continue to keep the patient anæsthetised in this way without the addition of ether it would be all the better for her afterwards, and her recovery to consciousness proved to be more satisfactory than if she had inhaled more ether. To make sure there was no ether remaining I poured the residue from the inhaler (which was under a drachm) into a glass measure and threw it on to the fire when there was not a trace of inflammable substance in it. When I removed the inhaler for washing out I could not detect the slightest smell of ether about it. In bringing this to notice it is in the hope that it will serve a useful purpose by showing how much more ether is frequently given than is necessary and what can be done without any at all after once subjecting the patient to its influence.

Weymouth.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

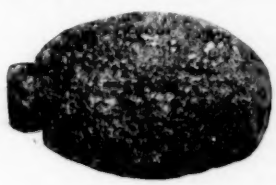
SALFORD ROYAL HOSPITAL.

THREE CASES OF INTESTINAL OBSTRUCTION.

(Under the care of Mr. HERBERT LUND.)

THE symptoms produced by the impaction of a large gall-stone in the small intestine are shown by the account of Case 1; the pain, however, appears to have been more severe than usual, and the vomited material became fæculent at a very early date. The absence of abdominal distension was noticeable for a case in which the other symptoms pointed to intestinal obstruction. The diagnosis of "impacted gall-stone" must be always difficult and in many cases quite impossible—especially if there is no history of pain in the hepatic region preceding the attack and the gall-stone cannot be felt through the abdominal wall either before or after the administration of an anæsthetic. In a case recently brought forward the stone could be felt per rectum, the coil of bowel in which it was having slipped into Douglas's pouch. Mr. Eve in an account of a successful excision of a gall-stone from the small intestine gives a summary of cases already published. "Taking the earlier and later cases together there are 27 in all, of which 17 died and 10 survived the operation of laparotomy." Of the 10, 9 were treated by incision of bowel and closure of the opening by suture and 1 by pushing the gall-stone through the ileo-cæcal valve. Mr. Lund's case is therefore an addition to a list of successes far from large at present, but we think that the list will grow from year to year, because the necessity for early operation is recognised and there is greater care taken in the various steps of the operation. The blocking of the intestine by a gall-stone is not a frequent occurrence, so that the list of operations performed for the condition can never be a large one. The general state of the patient in the first case of intussusception was extremely grave and the prognosis correspondingly bad. The symptoms had been in progress for several days, and although it is not certain that the intussusception had existed for the whole of the time it was possible that such might be the case, for the child was in a state amounting almost to collapse. It is evident that nothing less than abdominal section would have been of any use. The second case of intussusception is a very instructive one, for, although the surgeon performed the operation as soon as possible after seeing the boy and reduced an intussusception, the result proved fatal because of the presence of a second intussusception. We do not quite gather which of the two was the earlier in date of formation, or whether the ileo-cæcal one could have been reduced had it been found. We have strongly advocated operation in certain cases of intussusception for some years and are glad to note an improvement in the treatment of acute cases. The mortality is diminishing. There have been several successful cases during the last few months at the various hospitals in London.

CASE 1. *Obstruction by gall-stone; laparotomy; recovery.*—A married woman aged forty-four years was admitted into the hospital on Jan. 29th, 1896. Early in the same month she had an attack of hemiplegia with aphasia; from this she recovered slowly, but before the present illness she had been able to get up and walk with assistance. There was no history of jaundice or colic, and with the exception that she had worn a truss for left inguinal hernia she was in appearance, and by report, a healthy woman. On Jan. 29th in the evening the patient was suddenly seized with intense pain in the abdomen, not localised to one spot but all over, with immediate vomiting, and as the truss had been neglected for some weeks the left inguinal region was looked upon as being probably the seat of the mischief. Dr. Mackenzie, under whose care the patient had been, could detect no hernia, and as complete intestinal obstruction existed and the vomited matter was distinctly fæculent she was sent into the hospital. On admission she lay on her back, being evidently in great pain, which was paroxysmal, with hiccough and frequent vomiting, the vomited matter being watery, brownish in colour, and very fæculent in odour. The thighs were not flexed; the abdomen was not distended and there was no very marked pain on palpation; but on a level with, and to the right of, the umbilicus there was more pain than elsewhere. She had not the usual appearance seen in cases of strangulated bowel and no distended coils of intestine could be detected nor was there any evidence of a loaded bowel. As the left inguinal region seemed to be fuller both to the eye and touch, the case was looked upon as probably one of hernia, although obstruction from a gall-stone was also mentioned and considered as a not unlikely cause of the trouble. Median laparotomy was performed by Mr. Herbert Lund, an incision about four inches in length being made below the umbilicus. No fluid was present in the peritoneal cavity. The left internal inguinal ring admitted the tip of the little finger easily, as did the right also, but there was no hernia. On withdrawing the hand a hard mass was felt in the small intestine and this proved to be a gall-stone firmly fixed in the ileum and lying near the brim of the pelvis. The loop was carefully drawn outside and packed round with sponges. The coats of the gut over the stone were stretched and dark in colour. With the finger and thumb of either hand Mr. Knight, the house surgeon, then clamped the bowel above and below the stone. An incision about one and a quarter inches in extent in the long axis of the bowel was sufficient to expose the calculus, which was easily removed, a small quantity of intestinal secretion escaping at the same time. The incision was then closed with thirteen Lembert sutures of finest catgut, the gut was gently sponged over with boracic lotion, and the abdominal wound was closed with silkworm gut sutures, horsehair sutures being used for the edges of the skin. The stomach was then well washed out with warm water. The illustration shows the shape of the calculus, which resembles that of the gall-bladder. The convex end is polished and quite smooth. The duct end is cut off abruptly and has a well-marked facet. The measurements of the stone are as follows: the long diameter is one and



five-eighth inches, the transverse diameter one inch, the longitudinal circumference four and a half inches, and the transverse three and a quarter inches. Its weight is three drachms, thirty-two grains. The surface is tuberculated. The progress of the case was as follows. On Feb. 1st the patient passed a comfortable night and no vomiting occurred. She was given a teaspoonful of milk every half-hour. On the 2nd there was also no vomiting; some flatulence was present. The milk was increased to a tablespoonful. On the 3rd she passed flatus. The diet was increased by the addition of beef-tea. On the 4th the bowels were moved naturally. On the 12th she was sick in the morning, the vomited matter being chiefly bile. The temperature up to the 8th remained normal, but the evening temperature of the 9th, 10th, and 11th rose to 99·8°, 100·4°, and 100·6° F. respectively, and then the temperature gradually fell until it became normal again. The wound was first dressed on the 11th and was quite healed; at the second dressing on the 17th the sutures were all removed. On the 23rd the motions had been carefully examined for any calculi, but without result. On that day a small piece about a quarter of an inch in length and rather less in breadth, with no facets, was passed. On March 12th the patient was in excellent health and had passed no more fragments.

CASE 2. *Intussusception; laparotomy; recovery.*—A very anæmic, delicate-looking girl, nine years of age, was admitted into the hospital on Dec. 2nd, 1895, with symptoms of intestinal obstruction. Previously to the present attack she had been free from illness, but her bodily condition showed that there had been great want of nourishment, for

there was a total absence of fat all over the body. The following history was obtained. On Nov. 23rd the bowels were moved naturally, and on the 24th there was some vomiting, with headache, but no abdominal pain. On the 25th abdominal pain was complained of running across below the level of the umbilicus, and this continued to increase until the 27th, when Dr. Mitchell of Weaste was called in and he prescribed for the patient. On the 28th the bowels were moved, the motion being small, black, and watery. On the 29th the vomiting, which had been more or less continuous since the 24th, became fæculent and remained so up to Dec. 2nd. On admission the patient was in a critical condition; the pulse was very feeble and running, the breath was foul, the tongue was furred, and the face was drawn and pinched; the vomited matter was distinctly fæculent in appearance and odour. The temperature was 97·6° F., the pulse 100, and the respiration 24. The child lay on her back with both legs drawn up; the abdomen was distended, and at times peristalsis was distinctly evident in the coils of intestine. There was tenderness on palpation, but no distinct feeling of resistance in one spot more than in another. No flatus had passed since the 30th and no blood or mucus had passed per anum. Mr. Herbert Lund saw the case immediately after admission and at once performed median laparotomy. On opening the peritoneum a small quantity of fluid escaped; the intestine was distended, and a knuckle of small bowel protruded. This was then followed inch by inch, the house surgeon, Mr. Knight, carefully returning the bowel into the abdomen as quickly as it was examined so that there were never more than two or three inches exposed at one time in the wound. It was soon found that the bowel was being traced upwards, for the duodenum was reached. The direction was therefore reversed, and in the ileum, some distance above the ileo-cæcal valve, an intussusception was found. The entering portion of gut measured probably a little over three inches, was much contracted, and was adherent to the receiving portion, and at the point of entry of the gut there was a thick layer of lymph. By carefully squeezing the receiving layer, rather than by traction upon the entering bowel, the intussusception was reduced. The bowel was thickened, congested, and pulpy to the touch, and on the free surface away from the mesenteric border there was a small extravasation of blood. After reduction the bowel could be seen to gradually expand, and it was then replaced and the abdominal wound closed in layers. For twelve hours after operation there was occasional vomiting fæculent in character, but after this the trouble ceased. On Dec. 4th she felt much better; no flatus was passed. On the 5th she complained of pain in the abdomen and she expectorated a little blood. On the 6th the bowels were moved after an enema. On the 8th the bowels were moved twice naturally; a little blood was passed with the first motions. On the 10th at the first dressing the wound was found to be healed. On the 16th at the second dressing the sutures were removed. The patient left the hospital on Jan. 26th, 1896, for the Convalescent Home at Southport. The temperature after the operation remained generally at 99°, but on two occasions it went up at night to 101·2° and fell again to normal the next morning. There was nothing apparently to account for this.

CASE 3. *Multiple intussusceptions; laparotomy; death.*—A fine healthy boy aged five months was quite well up to Jan. 26th, 1896, on which day a sister aged nine years gave him a spoonful of boiled peas. On the 27th he was evidently in great pain and there were much vomiting and purging; on the following day the condition was much the same. On the 29th he was seen by Mr. Quine, with whom, late in the evening, the case was seen in consultation. The child was collapsed and at intervals had severe paroxysms of pain, drawing his legs up and screaming when touched. The abdomen was too tense to make anything out by palpation. There was some discharge of blood-stained mucus on the diapers, but digital examination per anum gave no help in diagnosis. As the case was evidently one of intussusception the child was at once removed to the hospital and laparotomy was performed. Under chloroform no marked fulness could be made out in any part of the abdomen. Upon opening the peritoneal cavity a small quantity of brownish fluid escaped, but without fæculent odour. The first portion of intestine (small) which presented was then traced, and in the ileum (probably) an intussusception about four inches in length was found and easily reduced. There was a thick layer of lymph between the entering and receiving layers. The bowel was congested and red. The supposed cause of all the trouble having been found and the child being very collapsed no further examination was made, but the wound closed in one layer with silkworm gut with intermediate horsehair sutures for the skin. After the operation the child rallied and seemed better, but died suddenly in convulsions eight hours later. An examination post mortem showed that the bowel which formed the intussusception detected was in good condition, but there was an intussusception (ileo-cæcal) the apex of which extended as low as the sigmoid flexure.

Remarks by Mr. HERBERT LUND.—In Case 1 the patient had no recollection of any colic or feeling of uneasiness in the region of the gall-bladder previously to the onset of the acute symptoms. The passage from the bladder to the duodenum must have taken place by adhesions and subsequent formation of a fistulous communication, and it is curious that this could have occurred without attention being drawn to the hepatic region. In Case 3 the intussusception which was reduced must have been of some considerable duration, for there was a well-marked layer of lymph where the entering and receiving layers touched and the entering bowel was much congested. The result must have been the same had the more severe intussusception been discovered, but the case will serve as a warning not to allow the value of rapidity of operation to outweigh thoroughness. The child was very collapsed and my one thought was to complete the operation as quickly as possible; the patient was not on the operating table half an hour. In the three cases Mr. Knight, the house surgeon, gave me great assistance for which my thanks are due.

ESSEX AND COLCHESTER HOSPITAL.

A CASE OF DERMATITIS HERPETIFORMIS INVOLVING THE ALIMENTARY CANAL AND ENDING FATALLY.

(Under the care of Mr. LAVER.)

For the notes of the case we are indebted to Dr. J. Kenneth Watson, house surgeon.

A woman aged fifty-two years was admitted into the hospital on July 15th, 1896, with the following history. At the commencement of last March, after family bereavement which had brought about serious mental depression, she began to complain of an eruption which commenced at the back of the shoulders and had continued to spread rapidly up to the present time. On her admission the skin was covered with an eruption consisting chiefly of large bullæ, irregular in shape and size, situated on an erythematous base. In addition to the bullæ there were squames and pustules, although the first predominated. The temperature was not raised, nor were there any signs of acute illness. There was a general feeling of "soreness" rather than of great irritation, accompanied by constitutional depression. No family history of skin disease or any evidence of syphilis was forthcoming. She was a year past the menopause. A mixture containing iodide of potassium, perchloride of mercury, and liquor arsenicalis was ordered, and an ointment containing oxide of zinc and ammoniated mercury. Under this treatment the skin improved very rapidly, the contents of the bullæ drying up and the lesions being replaced by raised pigmented and discoloured patches. On the fourth day two bullæ were noticed, one on each side of the hard palate posteriorly, and at this time diarrhœa set in, which became very intractable, although it was partially held in check by sulphate of copper and opium in pill form. Mercurial treatment was now stopped, and on the eleventh day opium in larger quantities had to be administered. From this time the patient rapidly became weaker, and for two days before death the diarrhœa was accompanied by vomiting, which could only be partially controlled. She died on the fourteenth day.

Remarks by Dr. WATSON.—The points of interest in this case are: (1) the universal distribution, almost no part of the trunk or limbs being free; (2) the apparent lack of any cause beyond the mental condition; (3) the coincidence of the rapid healing of the skin lesions with the commencement of the diarrhœa, indicating the involvement of the alimentary canal by the disease; and (4) the rarity of death from this disease. For the name of this disease we are indebted to Duhring, and it includes many conditions to which various names have been given by dermatologists in times past. The picture in Morris's "Diseases of the Skin" (p. 101) is an admirable representation of the condition present in this case. Unfortunately, no post-mortem examination could be obtained.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

The Etiology of Gonorrhœa.—True Unilateral Hermaphroditism with Ovotestis Occurring in Man.—Exhibition of Specimens.

A MEETING of this society was held on July 1st, Dr. F. H. CHAMPNEYS, President, being in the chair.

Dr. MCCANN read a paper on the Etiology of Gonorrhœa. In this paper previous observations had been examined and an attempt made to throw additional light on this complex question. As a true understanding could only be arrived at by studying the gonococcus as it occurred in the discharges, abscesses, and the like in the male suffering from gonorrhœa, in the female, and in the eyes of the newly born, together with cultivation and inoculation experiments, an investigation had been carried out on these lines, the results of which were detailed in the paper. Dr. McCann first described his method of investigation, then alluded to the form and size of the gonococcus, the action of staining re-agents, the detection of gonococci in the tissues of the host, and the relation of the gonococcus to the pus-cells. The gradual process of pus-cell destruction was traced and described in detail; the relation of gonococci to epithelial cells and the stages of epithelial cell destruction were next dealt with. With regard to the recognition of the gonococcus by the aid of the microscope it was found that the form was not characteristic and the size not reliable, that gonococci were present in the pus of every untreated case at some period or other. Secretion free from gonococci did not cause a gonorrhœal inflammation. Secretion containing gonococci—even small quantities—affected sensitive mucosæ with absolute certainty. If no gonococci were found it could not be said that the disease had not been gonorrhœal. Where numerous other organisms were present—e.g., in pus from the cervix uteri—the gonococci might be hidden; they might be embedded in the mucosa, appearing only at intervals in the secretion. The methods of cultivating the gonococcus were fully detailed and inoculation experiments added.—Dr. HORROCKS asked if it were possible to obtain evidence of the presence of the gonococci in tolerably easy manner; also what did Dr. McCann mean by saying that a previous attack of vaginitis predisposed to gonorrhœa? Did he mean gonorrhœal vaginitis or some other form? He did not think that attacks of gonorrhœa in either the male or the female predisposed to future attacks, on the contrary he believed that repeated attacks rendered the mucous membrane affected less prone to attack.—Dr. DAKIN said he was interested to hear Dr. McCann's opinion that a large number of the cases of pelvic inflammation ascribed to gonorrhœa had probably not that origin. He would be glad to have his views as to the length of time which should elapse before a previously occurring gonorrhœa might be acquitted on the charge of causing perimetritis or pyosalpinx. It was a somewhat complicated but an important question.—Dr. CULLINGWORTH asked Dr McCann what evidence he considered sufficient to warrant the conclusion that salpingitis was of gonorrhœal origin.—Dr. MCCANN replied.

Dr. G. F. BLACKER and Mr. LAWRENCE read a paper on a case of True Unilateral Hermaphroditism with Ovotestis occurring in Man, with a summary and criticism of the recorded cases of true hermaphroditism. The specimen described was classed under the sub-division of true unilateral hermaphroditism. It was obtained from an eight and a half months' fœtus and consisted of a mal-developed uterus unicornis with Fallopian tube and ovary upon the right side, while on the left side the genital gland had the microscopical structure of both ovary and testis, and was connected with a mal-developed Fallopian tube and an enlarged Wollffian duct representing epididymis and vas deferens. A summary was given of twenty-eight cases collected from the literature and described as instances of true hermaphroditism—viz., two of the unilateral, nine of the bilateral, and seventeen of the lateral kind. Reasons were given for accepting only Heppner's case among the nine bilateral, and Obolonsky's and Schmorl's cases among the seventeen lateral as proved examples of true hermaphroditism. The specimen described in the present paper appeared to be the only case of true unilateral hermaphroditism in man recorded up to the present time. From their examination of the reported cases Dr. Blacker and Mr. Lawrence believed that the occurrence of true hermaphroditism in man was proved; that is, if the term be taken to mean merely the presence of different genital glands in one individual without reference to the presence or absence of their functional activity.—Dr. HERMAN said that these cases were so rare that there must be few Fellows of the society competent to criticise the paper. He wished to express his own high appreciation of the instruction derived from it, of the labour which Dr. Blacker and Mr. Lawrence had put into it, of the ability of the reasoning, and the excellence of the microscopic sections.—The PRESIDENT said that the paper was of a kind which from its very nature almost precluded discussion. Such papers, however, were of great value as scientific records in the society's Transactions.

Dr. REMFRY exhibited two microscopic slides from a case of Sarcoma of the Uterus Subsequent to Pregnancy.

BEDFORD MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Empyema of the Gall-bladder.

A MEETING of this society was held on June 25th at the Bedford Infirmary, Dr. G. P. GOLDSMITH, President, being in the chair.

Dr. EMMERSON exhibited a boy with Congenital Absence of Both Radii.

Mr. COCK showed a man on whom he had operated for a Strangulated Right Inguinal Hernia, the patient now being able to follow his occupation of a platelayer without wearing a truss.—Mr. COCK also showed a boy from whom he had removed the Astragalus for Tuberculous Disease of the Ankle, and exhibited a skiagram showing the present condition. The result obtained was very good.

The PRESIDENT showed a woman with some of the symptoms of Myxœdema.

Mr. KINSEY showed a man aged twenty-seven years, with a Sinus in the Right Loin left after draining a large pyonephrosis, from which three calculi were removed. At the operation the secreting tissue of the kidney was found to be entirely destroyed and calculi were present which must have taken years to form, yet the total duration of renal symptoms was only three months.—Mr. KINSEY also read notes of a case of Hydronephrosis in a young woman due to mobility of the right kidney, which he had relieved by suturing the kidney to the lumbar muscles.

Mr. GIFFORD NASH read notes of a case of Empyema of the Gall-bladder, due to a stone in the cystic duct, which recovered after drainage of the gall-bladder and removal of the stone. He also showed stones from the gall-bladder and hepatic duct, and one which had been passed after six days' symptoms of intestinal obstruction, and discussed the diagnosis of distension of the gall-bladder and movable right kidney.

Mr. A. F. GOLDSMITH showed a woman who had suffered from a Compound Dislocation of the Ankle with Fracture of the Fibula and had made an excellent recovery under antiseptic treatment.

Dr. HARVEY GOLDSMITH showed a Stomach with a Perforated Ulcer removed from a young man who died in the infirmary a few hours after an exploratory laparotomy.

ANNUAL MEETING OF THE BRISTOL MEDICAL MISSION.—The annual meeting of this society was held on June 25th. The honorary secretary, stated that last year the income was £1872 from legacies and otherwise. The ordinary expense in carrying out the mission was £663. £1200 of their legacies had been invested, but the average income was £150 less than was required to meet the expenditure. During the past year 7000 out-patients had been treated, the attendance of these being 23.000; 1239 patients had been attended at their homes. Mr. W. Elder, L.R.C.P. Edin., the medical missionary, gave a short account of his ten years' work in the slums of Bristol, and said that although he did not wish to appear to think that no one else was doing work in the slums, he maintained that the society was doing an excellent work—a remark with which the poor of Bristol will cordially agree.

Reviews and Notices of Books.

A System of Surgery by American Authors. Edited by FREDERIC S. DENNIS, M.D., assisted by JOHN S. BILLINGS, M.D. Vol. II. 1895. Philadelphia: Lea Brothers and Co. Pp. 915. Price 36.

WE had occasion, in reviewing the first volume of this excellent system of surgery, to speak highly of the standard attained by it, and we are happy to find that this the second volume has maintained the level reached by the first. It commences with an able article on Minor Surgery, written by Dr. H. R. Wharton; this includes descriptions of all the various forms of bandaging, with numerous illustrations, apparently reproductions from photographs; the descriptions are clear. The title of some of the applications of the "handkerchief bandage" are unnecessarily cumbrous—for instance, one is called the "Mento-vertico-occipital Cravat." In speaking of the temporary arrest of hæmorrhage Dr. Wharton says that Petit's tourniquet is "the best for ordinary use," and "this instrument is very generally employed for the control of hæmorrhage in wounds of the extremities"; this is an opinion with which few English surgeons will agree, and, in fact, this tourniquet is now very little used in this country, as it has a great tendency to compress the veins before the arteries, and in other ways it is very much less useful than Esmarch's elastic tube. A figure of Signoroni's horseshoe tourniquet is called "Hoey's clamp," while a representation of an instrument apparently identical with Lister's aortic compressor is called "Signorini's (*sic*) tourniquet."

A careful article on Plastic Surgery by Dr. G. R. Fowler follows; it is fully and admirably illustrated, especially the portion treating of harelip. Lieutenant-Colonel W. H. Forwood, Deputy-Surgeon-General United States Army, writes on Military Surgery and the Care of the Wounded on the Battlefield, and he gives an interesting account of the field service employed in the army of the United States, in the British army, and in the armies of other European Powers.

Diseases of the Bones are dealt with by Dr. N. Senn of Chicago. He considers that primary acute suppurative periostitis is exceedingly rare, and that the vast majority of the cases which are described as suffering from this affection are cases of osteomyelitis; in fact, he accepts the view which is more current in Germany, while in England it is generally recognised that, if we exclude cases of epiphysitis and cases of tuberculous inflammation of cancellous tissue, suppurative osteomyelitis is a rare affection except after compound fractures or amputations.

Dr. V. P. Gibney of New York writes on Orthopædic Surgery. One of his opening remarks rather surprised us—viz., that "the term 'orthopædic' itself is well known to mean 'to teach or educate straight.'" The descriptions Dr. Gibney gives of some of the operations described are very brief; certainly not sufficiently ample to enable a surgeon to perform them, if he had never seen them done. For instance, Phelps's method of treatment of severe talipes varus is hardly more than mentioned. Under the same heading of Orthopædics the diseases of the joints are considered, yet we cannot but think that the subject is treated in a very incomplete manner, Charcot's disease, for instance, being dismissed in two small paragraphs of six and four lines respectively. It may be a matter of taste, but we cannot agree with Dr. Gibney when he says that in double congenital dislocation of the hip "the gait is sometimes rather graceful." The opening paragraph in the section on joints is interesting. "It is generally conceded that American surgeons have made the greatest advance in the treatment of not only the diseases which implicate the joints, but of the deformities which result from these diseases." Dr. Stimson of New York has a carefully-written article on Aneurysms in general and Dr. P. R. Bolton considers aneurysms of particular arteries. The editor, Dr. F. S. Dennis, contributes a short paper on the Surgery of the Arteries and Veins (exclusive of Aneurysm). The Surgery of the Lymphatic System is well dealt with by Dr. F. H. Gerrish of Portland, Maine, and his article is illustrated by some admirable diagrams of the superficial and deep lymphatic vessels and glands of the head and neck, the axilla and the upper limb, and the groin and the lower limb. The author prefers to call lymphatic glands lymphatic nodes. There are objections to the use of the word "gland" in this connexion, but the pathological use of the word "node" is so thoroughly established that we fear the general adoption of this suggestion can only lead to still greater confusion. The account of Diseases and Injuries of the Head occupies nearly 300 pages and is written by Dr. Roswell Park of Buffalo. It is very full and complete. In speaking of the healing of fractures of the skull Dr. Park does not seem to recognise that the small formation of new bone in these fractures is chiefly due to the very slight amount of movement that can occur. Occasionally it happens that a small piece of the inner table has been splintered completely off and yet readily unites with the rest of the bone. Such a separated fragment would be very liable to be affected by the pulsation of the underlying brain, and thus we should expect a more abundant formation of new bone. Fractures of the base of the skull are dealt with in a very satisfactory manner, but the author does not give any differential diagnosis as to the fossa involved. The pathology of concussion is very fully discussed, and the conclusion arrived at is that usually accepted in England—namely, that death from pure "concussion" without any lesion, though perhaps not impossible, is extremely rare. Dr. W. W. Keen of Philadelphia has contributed the article on the Surgery of the Spine. The description of laminectomy is good. The article by Dr. J. B. Roberts on the Surgery of the Nerves concludes the volume. On the whole, we are inclined to consider this volume as even an improvement on the first.

Youthful Eccentricity, a Precursor of Crime. By FORBES WINSLOW. London and Toronto: Funk and Wagnalls Company. 1895.

THIS little volume deals with a difficult though important subject. The first part deals with Youthful Eccentricity, its Results and its Causes. These points are well discussed and many useful suggestions are offered as to the management of children whose peculiar characteristics cause much anxiety to parents and guardians. For instance, if a child evinces a disposition to cruelty everything should be avoided which stimulates that action. Passion or severe harshness on the part of the parent intensifies that power. A child may exhibit chronic stubbornness, which is an abuse of a natural feeling implanted in the mind, and which, if treated in a persistent and dogged manner, will degenerate into habitual resistance and obstinacy. The hereditary character of tendency to crime is also fully recognised.

In Part II. there is a chapter on Predisposing Causes of Crime, and on Coördinate Heart and Head Education the Remedy, and great stress is laid on the importance of adopting a well-regulated, enlarged, and philosophic system of education by which all the moral as well as the intellectual faculties will be expanded and disciplined. The book is worth perusal by those interested in the management and education of children, especially of those children who come of neurotic families.

Aseptic Surgery. By CHARLES BARRETT LOCKWOOD, F.R.C.S. Eng., Assistant Surgeon to St. Bartholomew's Hospital. Edinburgh and London: Young J. Pentland. 1895. Pp. xiv. and 233. Price 4*s.*

MANUALS of aseptic surgery multiply apace, and no further proof is needed of the enormous extension which has taken place in recent years in the aseptic treatment of wounds. Not that the aseptic method differs so decidedly from the antiseptic as the difference in the names might imply, but the difference is rather in the methods employed to render and keep free from germs the instruments and dressings used and the part on which the operation is performed. The change which has really occurred has been due to our improved and extended knowledge of bacteriology and is essentially a substitution of heat for antiseptics as the means of attaining a condition of asepsis. Our opinion of the value of the ordinary antiseptics, such as perchloride of mercury and carbolic acid, was based chiefly on the results of culture experiments performed without any special care having been taken to remove the antiseptic used, and thus many substances were thought to have destroyed micro-organisms when all that had been done was to hinder their development. This little volume gives a useful but unpretentious account of the method of practice of aseptic surgery; the material composing the book originally appeared in the *St. Bartholomew's Hospital Journal.* In the first section Mr. Lockwood has laid down the principles upon which aseptic surgery is based, and following this is a description of the more common bacteria, especially those of surgical importance. No illustrations accompany these descriptions, but the omission was no doubt intentional, as the whole book is eminently practical in aim, and time after time the author insists on the importance of the student cultivating and examining the bacteria for himself, and he urges the desirability of testing frequently the efficacy of the attempts made to exclude germs from wounds. An account of the wide and general distribution of bacteria comes next. Mr. Lockwood appears to over-estimate the number of bacteria in "ordinary tap water"; the number is by no means large when tap water is compared with water from most other sources. In speaking of the sterilisation of water, the author acknowledges that porcelain filters (such as Chamberland's or Berkefeld's) may be used for this purpose, but he says that water may be rendered sterile more easily and certainly by heat. This is no doubt true, if only a small quantity of water be required; but if a large quantity of water be needed, as for flushing a large cavity, no other method can equal in convenience the employment of a porcelain filter. A section follows on the various means at our disposal for destroying germs and for preventing their growth. Lastly, an account is given of the application to surgical practice of the scientific principles of asepsis, concluding with a short chapter on the results which have been obtained by aseptic surgery as judged by statistics. The book can be cordially recommended to all who are desirous of learning the theory and practice of the modern treatment of wounds.

Practical Examination of Urine. By JAMES TYSON, M.D. London: Baillière, Tindall, and Cox. Ninth Edition.

THAT a work on the practical examination of urine should have reached a ninth edition is sufficient proof of its excellence and popularity, and no recommendation on the part of the reviewer is needed to introduce it to the medical world. In the present edition all parts of the book have been brought up to date and the student and practitioner will find full details of every qualitative and quantitative analysis of urine that may be required.

We notice, however, one exception—namely, that no method is described by which the acidity of urine can even be approximately determined. This is to be regretted, as modern writers on dyspepsia and gouty conditions have shown the importance of frequently ascertaining the average degree of the acidity of the urine of patients subject to these complaints.

In addition to the routine tests for albumin and sugar directions are also given for the detection of peptone, acetin, and the colouring matters such as urobilin, uropheein, &c. The section on urinary deposits contains several accurate and well-executed illustrations.

LIBRARY TABLE.

Ein Mittelenglisches Medizinbuch. Herausgegeben von FRITZ HEINRICH. (*An English Medical Treatise of the Fifteenth Century.* Edited by FRITZ HEINRICH.) Halle-a.-S.: Max Niemeyer. London: David Nutt. 1896.—This work is of considerable interest both to the medical antiquarian and to the student of Middle English; its date is, in the editor's opinion, probably between 1430 and 1450, when Caxton would still be a young man. The text is based on six manuscripts preserved in the Library of the British Museum, the collation of them being given at the foot of each page with the usual copiousness of German scholarship. There is comparatively little difficulty in reading any part of the book and there are not many words which the editor gives up as unintelligible. A few of the prescriptions border on the fanciful, but some are correct enough, such as the following: "Al so gef thou se a man in perel of bledynge, loke where the wounde is, and gef hit be on the foot, bynde him aboue the ankle aboute the leg, and gef hit be on the leg, bynde him aboue the kneo a bout the thygh, and gef hit be on the honde, bynde hym aboue the wryst abowte the arme, and gef be on the arme, bynde him aboue the brawon of the arme wyth a good lyste, twyes or thryes, and thenne shal he be staunched." The modern combination *th* is always represented by a special single character.

The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. Based on Mayne's Lexicon. Twenty-second Part: Pinpoint—Pukeweed. London: The New Sydenham Society. 1895.—Of this valuable work of reference we need only say that it epitomises an enormous mass of literature and explains many words unfamiliar to modern readers. The present part, for instance, at one place gives some account of the pneumococcus of Fraenkel and of Friedländer, and in another passage mentions that Pliny applies the word "plumbum" not only to metallic lead but also to a disease of the eye. Platinum black is not usually prepared by the process here described. The absence of pagination is noticeable, although it is a minor defect in the case of a lexicon.

JOURNALS AND REVIEWS.

The Practitioner.—The original articles include papers by Mr. Christopher Heath on Meningocele and Encephalocele, by Dr. F. W. N. Haultain on Pregnancy complicated by Fibromyomata, and by Dr. Lauder Brunton on Salicylate of Sodium and Bromide of Potassium in the Irritable Temper of Cardiac Disease and Gout. Dr. R. L. Bowles writes strongly in favour of the Schott treatment of heart disease as practised at Nauheim, and Sir William Stokes describes an ingenious wire splint for avoiding deformity after resection of the central portion of the lower jaw. An autobiography of Dr. Matthew Baillie, with portrait, annotated by Mr. J. B. Bailey, B.A., librarian of the Royal College of Surgeons of England, is an interesting account of a distinguished man. Dr. Baillie attended King George III. and the Princess Charlotte; he mentions that his practice "became quite overwhelming," and that he was "employed daily from six

o'clock in the morning till past eleven o'clock at night (except a short interval at dinner) in seeing patients and in writing answers to letters."

The Edinburgh Medical Journal.—Dr. D. Berry Hart describes the use of plaster moulds as a basis for models in gynæcology and obstetrics. The patient being in the lithotomy posture, sheets of strong paper are so arranged between the table and the outer aspects of the thighs as to form a space into which plaster can be poured. Casts are then taken from the moulds thus obtained and after thorough drying are coated with boiled linseed oil and coloured with oil paint; they are very useful to teachers. Dr. Logan Turner shows that the interior of the larynx and trachea can be examined without a laryngeal mirror by the use of an instrument called the autoscope, which depresses the tongue and carries a small electric lamp. Considerable experience is necessary for success in this method of observation which was introduced by Dr. Alfred Kirstein of Berlin. Dr. J. W. Ballantyne continues his articles on Teratogenesis and Dr. J. G. McNaughton of the Birmingham City Hospital contributes an account of seventeen cases of diphtheria, all of which were treated with antitoxin and made good recoveries.

Cornhill's first number under its new editor is a good one. Mrs. Ritchie has a delightful paper upon the first number of "Cornhill" with many reminiscences of its then editor, her father. Thackeray's idea was that every man could write something about his profession which no one else could say, and so he asked Sir Henry Thompson "to describe cutting off a leg as a surgical operation, and do it so that a ship's captain at sea, who had not a doctor on board, would be able to take a man's leg off by reading your description." Is it Tom Cringle who describes a captain cutting off a man's legs with the "chart"—i.e., an anatomy book—propped up on the patient's chest, or is the incident narrated in Michael Scott's other novel? We are glad to see that Thackeray, great as he was, could lose MSS., as is apparent from a note of Sir H. Thompson to the present editor.

The *Journal of Laryngology, Rhinology, and Otology.*—Dr. Norris Wolfenden discusses Dr. Smith's report on Diphtheria and School Boards, a subject upon which we have given an opinion in our issue of May 23rd, 1896. Dr. John Macintyre's address at the demonstration given before the British Laryngological Association is a very interesting one. As far as we have seen Dr. Macintyre's work with the newly-discovered rays is far ahead of any other at present carried out in this country, but we fancy, although we have not actually seen Dr. Macintyre's results, that the new tube demonstrated in our office by Dr. Oscar Levy gives even better results than Dr. Macintyre has obtained.

The Pall Mall Magazine.—Mr. Arthur Griffiths has a rather good story about a nurse of Spanish beauty who, like her celebrated prototype, the Marchioness Brinvilliers, used to poison her patients and, finally, on being found out, poisoned herself. Mr. Griffiths is to be commended for the accuracy of his medical details, but he should not introduce the name of a living medical man.

ROENTGEN RAYS.

PHOTOGRAPHY OF RENAL CALCULUS; DESCRIPTION OF AN ADJUSTABLE MODIFICATION IN THE FOCUS TUBE.

BY JOHN MACINTYRE, M.B., C.M. GLASG., F.R.S. EDIN.

DURING the past four months I have, at the request of several physicians and surgeons, tried to photograph some cases in which the presence of renal calculus was suggested by the symptoms present. A control experiment was first undertaken at the request of Dr. Finlayson, who gave me a prepared specimen of renal calculus. With one minute's exposure, using a three-inch spark coil and the ordinary form of Newton's tube, an excellent negative was obtained showing the structure and outline of the organ and in the centre the calculus. The experiment was made with the view of testing whether renal calculus itself could be photographed. The next step was to try the experiment in the living subject. Five different patients suspected of having renal calculus were photographed with negative results. In most instances more than one negative was taken, and while the outline of the body, the deep-seated muscles, with fasciæ, ribs, pelvis, and spine, could all be made out (in one or two cases a faint indication of the kidney itself), no negative showed anything like a calculus. The question naturally arose, What value was to be placed upon the negative evidence which was obtained? It will be at once admitted that a positive result under the same conditions or as nearly the same conditions as possible would aid considerably in arriving at a conclusion. This I obtained last month. Dr. James Adams of the Glasgow Royal Infirmary asked me to photograph a patient upon whom he had previously operated for renal calculus. The photograph was taken with twelve minutes' exposure, a six-inch spark coil, and the plate was one of Paget's XXXXX. In this instance, at the correct situation, a picture of an obliquely placed elongated deposit was obtained. Having communicated this fact to Dr. Adams I suggested that he would not obtain a well-formed stone. I have just learned from Dr. Adams that he has operated successfully in the Glasgow Royal Infirmary and that the deposit was quite in accordance with what he had seen in the photograph. At the deepest portion of the old cicatrix an ill-defined mass was found and removed with the spoon. Details of the case will most likely be published in due time by Dr. Adams himself.

MODIFICATION IN THE FOCUS TUBE.

In some previous communications to THE LANCET I pointed out that a mercury interruptor was valuable, but in one instance a too heavy current was transmitted to the cathode, which caused destruction of the tube. I suggested to some of the instrument-makers that it would be advisable to fuse in several strands of platinum for the cathode instead of one, as is usually done, in order that a heavier current might be transmitted with safety. On placing this suggestion before Dr. Bottomley he informed me that in some experiments made previously to Roentgen's work, where he had desired to pass heavy currents into the interior of a vacuum tube, he had fused six strands of wire into the glass, and a specimen of this was given to Mr. Müller (Glasgow), who has made the tube. The concave cathode was made of aluminium about one inch and a half in diameter, and the square platinum disc was made thicker than usual. A special adjustment was arranged for the latter. Those who read Mr. Crookes's original papers will see that as far back as 1879 he had tried a similar experiment for other purposes.

In making tubes the instrument-maker does not always hit off the exact distance between the cathode and platinum plate. In this case the cathode occupies the usual position, but at the other end of the tube; directly opposite a narrow glass tube supports the platinum. The latter was joined to a short straight piece of copper wire, round which a few turns of thin aluminium wire were wound, so as to form a slight spring. The copper wire was slipped into the glass tube and could be drawn up and down as required. After exhausting the tube in the ordinary way if we tapped it, holding the cathode downwards, the platinum fell towards the aluminium disc. If, on the other hand, the position of the tube were reversed the platinum could be tapped downwards and so the distance was increased. The anodal connexion was made independently of the platinum disc at one side of the tube. With such a tube one can obtain the very best effects by adjusting while the results are observed on a fluorescent screen.

SOCIETY OF MEDICAL OFFICERS OF HEALTH (MIDLAND BRANCH).—At the meeting of the above branch, held in the Council House, Birmingham, on July 2nd, Dr. T. Ridley Bailey was unanimously chosen as President-elect for the ensuing year. Dr. Bailey, who is also President-elect this year of the Staffordshire Branch of the British Medical Association, has for many years been medical officer of health for Bilston.

New Inventions.

IMPROVED MOUTH GAG.

MR. W. R. ACKLAND, dental surgeon to the Royal Infirmary, Bristol, has suggested to Messrs. Arnold and Sons, West Smithfield, a modification of the jaws of Mason's and like mouth-gags. The innovation consists in making the

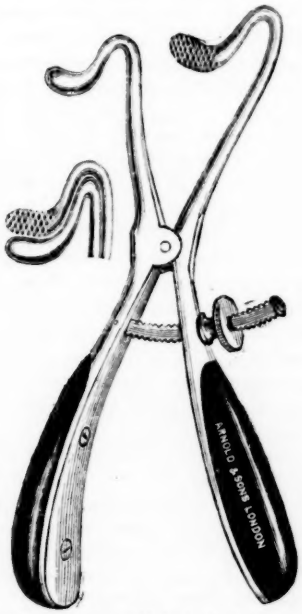


Figure showing appearance of blades both when open and shut.

rubber-covered noses to close edge to edge instead of exactly over one another. By this modification a thinner wedge is presented for insertion between the clenched teeth, which will be found advantageous in use.

THE ORIOLE PILLOW SLING.

I HAVE found the Oriole Pillow Sling to be of so much assistance in the treatment of spasmodic asthma or cardiac and renal asthma that I am willing to assist in bringing it under the notice of the medical profession. It is far superior to the ordinary bed rest. The pillow does not lie on the bed, but on a piece of strong canvas supported by straps fastened to the top and bottom rails of the bedstead. The makers are Messrs. Lipsett and Co., 21, Leece-street, Liverpool. I have only a slight acquaintance with the inventor.

ALEXANDER DAVIDSON, M.D. Edin., &c.
Gambier-terrace, Liverpool.

THE TRIPLE SPRING TRUSS.

MR. K. R SCHRAMM, of 24, Great Castle-street, Cavendish-square, has sent us a truss of a new design, in which the pad is not immovably attached to the spring, but is capable of a considerable range of adjustment at the discretion of the wearer. This unquestionable advantage is not obtained by any complex arrangement, nor is it attended by any sacrifice of efficiency in other respects. The end of the spring has a longitudinal row of perforations and the pad is provided with a socket in which this part of the spring slides easily and with very little shaking. On the front of the pad there is a small spring catch, the point of which can be passed through a hole in the side of the socket into any one of the holes in the spring, and the pad is thereby securely fixed in the position which the wearer finds most useful. The springs are easily detached, as there are no screws, neither are there any loose parts which might fall off or be mislaid. The springs

FIG. 1.

Pads and springs fitted together for use.

can also be detached from the back pad and replaced by weaker or stronger ones as required. The name "Triple Truss" refers to the three strengths of springs that may be

FIG. 2.

The same detached for changing either springs or pads.

used. The pads are stuffed with horsehair, and the metal parts are nickel-plated. Both the design and the workmanship are good.

A SANITARY FLOUR-BIN.

THE accompanying illustration will explain the simple but important modification in the construction of this useful receptacle. It is made of galvanised steel beaten into slightly concave shape, so that no lodgment is offered for the contents or crevices presented to catch and retain the fine particles of an article like flour. Thus if the bin be filled with flour and turned upside down the whole of the contents will be discharged. This is an important provision, especially in the case of flour, some of which, being left in a crevice, would be prone to deteriorate and communicate its objection-

able qualities to the fresh stores of flour that may be added from time to time. The invention is an exceedingly simple one, but it is effective and is an important step towards keeping wholesome one of the most common and useful foods entering into our daily diet. The Hygienic Flour-bin, as it is called, is the invention of Mr. Percy Young of 72, Mark-lane, E.C.

THE LANCET.

LONDON: SATURDAY, JULY 11, 1896.

THE election to the Council of the Royal College of Surgeons of England, which took place last Thursday week and resulted in the re-election of Mr. BRYANT and Mr. PICK and the election of Mr. J. N. C. DAVIES-COLLEY in the room of Mr. CADGE, appears to have been governed rather by personal than by political considerations. Mr. BRYANT'S position as a surgeon and as the representative of the College on the General Medical Council ensured for him a large amount of general support irrespectively of the votes of the Fellows educated at Guy's Hospital, and his seat was never endangered. Mr. PICK was rather closely pressed at one time by his senior colleague, Mr. POLLOCK, over whom he secured a majority of 32 votes. Undoubtedly the most striking—and, indeed, the governing—feature of the election was the remarkable number of plumpers—no less than 40—given to Mr. DAVIES-COLLEY. Whether these plumpers came mainly from Guy's Hospital Fellows or from the Society of Fellows we do not know, but it was natural that at the fourth time of asking, and with another and junior colleague from Guy's Hospital also standing, Mr. DAVIES-COLLEY'S friends should have made a supreme effort to place him upon the Council—an honour which he had nearly attained on previous occasions. Had the forty plumpers been distributed so that other candidates shared in the votes it is very likely that Mr. POLLOCK would have been returned for the third seat. Mr. DAVIES-COLLEY was fortunate in conciliating support both from official quarters and from the reforming section of the Fellows, to whose views he was considered to be favourably inclined. This consideration has influenced us on more than one occasion in speaking favourably of his candidature, and it has been stated that he supported the view that a new Charter should be obtained for the College. If this be so his accession to the Council will be a distinct gain to the advancing party in the Council, and it is in accordance with the fitness of things, and a just tribute to the estimation in which Mr. DAVIES-COLLEY is held, both at Guy's Hospital and in the profession generally, that he should not have been again passed over. Mr. POLLOCK'S courage in coming forward as a candidate has been fully justified by the position which he occupied upon the poll, as he closely followed Mr. PICK and was 24 votes ahead of the candidate who came nearest to him. The Association of Fellows, of which Mr. POLLOCK has for many years been President, was scarcely so active in commending Mr. POLLOCK'S candidature to the Fellows as might have been expected, and it is most probable that if a circular had been sent to the Fellows explaining the situation of affairs and showing the importance of Mr. POLLOCK'S return a successful result would have been secured. We are aware that with his customary modesty Mr. POLLOCK was desirous that no circular should be sent out. Nevertheless, in these days of high pressure organisation and effort are necessary for success, and the committee of the Association will be well advised not to relax their exertions, however strong and respected their candidates may be. Both Mr. EDMUND OWEN and Mr. CLEMENT LUCAS may be satisfied with the amount of support which they received on their first appearance as candidates. As both Mr. DAVIES-COLLEY and Mr. OWEN are on the Court of Examiners it was not desirable that both should be returned, and Mr. DAVIES-COLLEY had the stronger claims to the seat. Mr. LUCAS stood under disadvantageous conditions in appearing when two senior colleagues from Guy's Hospital—Mr. BRYANT and Mr. DAVIES-COLLEY—were also candidates; but that he should have received 173 votes in the face of this situation both proves the strength of the reforming views in the constituency and augurs well for the success of Mr. LUCAS on a future occasion. The comparative paucity of the votes recorded for Mr. WALSHAM was probably due to the plethora of direct representatives from St. Bartholomew's Hospital now sitting on the Council, and from this point of view the result is quite satisfactory. In all other respects we regard Mr. WALSHAM as a most suitable candidate and shall look forward to his selection on some future occasion when the retirement of some of his senior colleagues creates a vacancy for another surgeon from St. Bartholomew's Hospital to fill.

The conditions under which the election was held rendered it quite an inadequate test of the real opinions of the Fellows in regard to progress at the College. There is always a natural and indeed in many respects a laudable reluctance on the part of members of our profession to displace those who have done good service in the positions which they have occupied, and the Fellows of the College always lean towards the re-election of councillors. It was, therefore, unlikely that either Mr. BRYANT or Mr. PICK would be displaced, and this being so there was only one vacant seat to be filled. This seat was triumphantly carried by Mr. DAVIES-COLLEY, whose adverse fortune at former elections was completely changed by a happy conjunction of conditions which turned the tide in his favour. The plumpers from Guy's Hospital and the Society of Fellows were combined with votes, on the one hand, in combination with Mr. BRYANT and Mr. PICK, and, on the other, in combination with Mr. POLLOCK and Mr. LUCAS. The varieties of combination of votes at the election were many, and no one profited more by these combinations than Mr. DAVIES-COLLEY. His return should prevent fit and proper candidates for the Council from giving way to despair, even if they are not successful at the third time of asking.

After all, the crucial test of opinion in the constituency was not afforded at the election, but will be afforded in the poll of the Fellows which will shortly be taken on the question of the direct representation of the Members of the College on the Council. The committee appointed by the Council to draw up a circular with interrogatories for the Fellows has concluded its labours and reported to the Council, and no doubt in a few days this circular will be in the hands of the Fellows. All personal considerations will then be absent, and the Fellows will be face to face with the great problem of the future development of the

College and its adaptation to the special needs of the profession in the closing years of the nineteenth century of the Christian Era. That this opportunity will be utilised by the Fellows to place the College on a broader basis and more stable foundation we earnestly hope and steadfastly believe.

IN one of his delightful essays ERNEST RENAN dwelt upon the change which had in his day come over the spirit of higher education in France. In the preceding age education had been chiefly literary, and little value was attached to the physical and mathematical sciences as means for culture, though their importance for practical application and in special careers was, of course, recognised. In his own day the great critic and *savant* saw an opposite error creeping in—the error, namely, of believing that purely literary studies are valuable only to the man of letters. "For my part," says RENAN, "I should desire that the physical and mathematical sciences should hold at least an equal place in education with literary studies. The only tendency which in this particular is disastrous is the industrial and utilitarian spirit which degrades in equal degree science and literature — that spirit which has made men of mediocre powers believe that we can elevate the soul and form character by teaching young people land-surveying and how to make candles and soap."

A similar warning is not unnecessary in our own country, where utilitarian ideas have great influence and where liberal culture has never been over-estimated. It is very common to hear persons who have succeeded in life with but scanty educational endowments condemn all forms of education which have no obvious practical bearing, and exalt such studies as chemistry and mechanics as of vastly superior importance to languages, literature, criticism, and philosophy. This is not simply an error of judgment, it is rather the confusion of two radically different ideas. Technical education, in the broadest sense, is one thing, liberal culture is another. They have really but little in common, and they aim at quite different ends and follow quite different paths. Technical education, whether it be the learning of carpentry, or machine construction, or architecture, or anatomy, aims at an immediately practical result—at fitting the learner for a special task. It does not, except in the most indirect way, aim at developing his general mental powers, his judgment, imagination, or the like. It is true that technical education and liberal culture cannot be absolutely separated, inasmuch as every study affords some opportunity for self culture—e.g., chemistry and anatomy strengthen the faculty of observation, but still the broad distinction remains, and it is a real and permanent one. The study that is purely practical and pursued solely for profit is of little value as a means of intellectual development and self-culture. A liberal education implies just the opposite theory to the above. It means the pursuit of studies which have no immediate practical application and which are not chiefly mercenary in their object. It means the development of general intelligence rather than of any special and limited form of dexterity or skill. It aims at turning out a cultivated man, ready to devote well-trained powers to whatever special object may be desirable, rather than merely a clever mechanic or a skilful draughtsman. The studies which in the past have formed the staple of liberal culture are literature, criticism, and philosophy, and the assumption that these subjects can be displaced by the physical and biological sciences will probably be found in the long run a mistaken one. No man can be called cultivated who has not a fair acquaintance with the facts of human progress — which constitute history; or the thoughts, aspirations, and emotions of humanity—which constitute literature. We must always need to know "the best that has been thought and done in the world," and literary studies—and only these—can fulfil this end for us.

It must not, however, be maintained for a moment that the physical, biological, and mathematical sciences are valueless as instruments of general culture. In the essay already quoted RENAN remarks: "As for the purely speculative scientific studies, these contribute at least as much to intellectual culture as literary studies, and perhaps, if they were to enter largely into general instruction, they would correct the troublesome tendency which inclines the French mind to concern itself more with the form than the heart of things and to prefer rhetoric to truth." This is a most important distinction. The immediately practical study—the *brotstudium*—will contribute little to intellectual development, but science pursued in the philosophic spirit—i.e., in its large outlines and in its broadest relations to human thought and progress—is simply invaluable for this purpose. A doctrine like the correlation of forces or evolution is capable of being presented in such a way as to stimulate the intellect and imagination in a very high degree. But we must take RENAN'S warning to heart and be on our guard against a narrow utilitarianism in education. We want wise and good men even more than adroit workers or skilful specialists. Literature can never be safely displaced from the high position which the wise of past generations have so unanimously accorded to it, and it must continue to occupy a large and indispensable place in all well-ordered systems of education. It has been well said that the man who is unacquainted with what has been done and thought in the world—i.e., the man who is ignorant of literature—will inevitably over-rate or in some way misjudge the work and thought of his contemporaries and of himself. For wise thinking and sound judgment literary studies are indispensable. To undervalue them is a sign of imperfect knowledge or of limited sympathy. Science in these days needs no pleader. Its claims are justly vast and they are not disputed by any one whose opinions are worth consideration. It is important, however, to remember that science is not everything.

ON Monday last the Duke of DEVONSHIRE introduced in the House of Lords a Bill which will add to the present functions of the University of London those of a Teaching University, and it was read without debate for the first time. It is obvious that no Bill of such importance can be passed through the two Houses of Parliament during the present

session. The middle of August is too near, and we fail to see why the introduction should have been so long delayed. If the Lord President of the Council were keenly anxious to adopt the recommendations of the Cowper Commission he might have brought in the Bill at an earlier period of the session. The recent election to the Senate proves that Convocation, when canvassed throughout, will not agree to any scheme which seriously changes its present status. On the other hand, it is quite clear that most of the teachers in London, the most eminent leaders in science and in education, and the majority of the Senate of the University itself, are in favour of some such transformation as was indicated in the report of the Cowper Commission. As Lord PLAYFAIR brought in a Bill before the last dissolution with a similar object it may be necessary to point out that in both a statutory commission is recommended to carry out the scheme laid down by that Commission. We find, therefore, both parties in Parliament pledged to do something to forward the formation of a Teaching University in London, and both are now agreed that this must be done by remodelling the existing university. This substantial agreement marks an important advance, although we fear that the statutory commission will find great difficulties when it gets to work. The Bill will be resisted in the House of Commons, but if the Government is in earnest it will be passed. The scientific professors in London are already expecting a great university like that of Strassburg, with its professors, teachers, and magnificent laboratories, but their ideals are a little premature, for we see no evidence of either the State or the municipality taking such an interest as to expend any large funds for such a great work. A federation of university colleges, teaching institutions, scientific bodies, and medical schools is all that is recommended by the Cowper Commission, and this is far from taking the position occupied by a Continental university. Before such an institution could be created in the metropolis the teacher and the taught must be brought under State control, and that day is as yet far distant.

The Duke of DEVONSHIRE'S Bill differs from that of Lord PLAYFAIR in some important provisions. By the first, wider discretion and larger powers will be given to the statutory commission, especially in regard to the requirements of collegiate and non-collegiate students; and under the second a power of appeal to the Privy Council will be granted to any body or institution concerned. By these concessions it is hoped that the opposition of the graduates or of any institution may be greatly diminished. Lastly, power is reserved to either House of Parliament to address the Crown against the statutes which may be framed by the commissioners or against any part of them. It is full time that a Teaching University should be established in London so that the metropolis of England should no longer stand in line with Constantinople as the exceptions among European capitals. We still dislike the report of the Cowper Commission in many of its working details, but it is better that a statutory commission with wide powers should take the work in hand than that we should continue in a condition of absolute chaos.

Annotations.

"Ne quid nimis."

HYDROPATHY IN GLOUCESTER AND ITS RESULTS.

EVERYONE will be glad to hear of the rapid decline in the small-pox epidemic at Gloucester for, although it may yet be some weeks before the cathedral city is wholly free from the disease, there has been since the beginning of month a very satisfactory lull in the daily notifications which have continued almost without intermission from the middle of February. Many lessons will be derived from this outbreak, but there is one to which our attention has been especially directed of late that is of no small importance. It appears that about two months ago, a Leicester hydropath came to Gloucester and so influenced the people with his promises of cutting short the disease that he soon had a large *clientèle*, and subscriptions flowed in to meet the expense of the "treatment." This consisted in the immersion of the patient in baths of Condy's fluid, and the promise was held out that the disease would by this means be prevented from taking its natural course, and also deprived of its infectivity. A series of mild cases and the exercise of some discretion in the selection of his subjects, aided the delusion, but did not prevent the hydropath's services being requested in cases of more serious nature. Hence several deaths have occurred under his hands, and we are credibly informed that some of these were of subjects whose age and condition must have rendered it a grave risk to have employed such measures. Bronchitis in an elderly woman is hardly likely to be improved by a series of tepid baths. Yet, in circumstances which would render a qualified practitioner justly open to a charge of malpraxis, this empiric has got off without any inquiry into his proceedings because the coroner has not seen any reason to hold such an investigation. In a temperately worded document addressed to us by three leading practitioners of Gloucester, Dr. Batten, Dr. Oscar Clark, and Mr. Waddy, this laxity on the part of the judicial authority is clearly demonstrated. A coroner is entrusted with great powers and equally grave responsibility; and, although the Gloucester coroner may in every case of uncertified death from small-pox have taken the usual steps to ascertain whether any suspicious circumstances accompanied the case, we take leave to say that such steps are in the nature of things quite inadequate to determine that point. Indeed, from the statements before us we are convinced that in some of these deaths at least an inquiry ought to have been held. That no inquest has been held on any one of the twenty-three fatal cases known to have been subjected to this treatment by a self-confident quack is to our mind convincing of the need of legislation in relation to the coroner's office which shall render a repetition of such a scandal impossible; for it is a scandal that there should be even ground for suspicion that death has been directly or indirectly caused by ignorant malpractices, and that no opportunity should be afforded to the law to determine whether any justification exists for such suspicion or not. If the precedent is to be followed, what is there to prevent the administration of potent drugs by unqualified persons on the "kill-or-cure" principle in the face of epidemic disease?

"AN EXAMPLE TO BE FOLLOWED."

LAST year, under this heading, in our issue of July 20th, we gave an account of the annual cricket match between the members of the legal and medical professions in Preston

and of the garden party in honour of the event. This year the proceedings were even more successful than those of last year, and we are glad to see that another Lancashire town has followed the example of proud Preston. Gatherings like this are a potent cause of *camaraderie* and good feeling, for anything that brings members of our profession into contact with those of another—i.e., in a social as opposed to a professional manner—tends to widen men's views and extend their sympathies. As Harry Lorrequer sings—

"Here's to the Graces—
Law, Physic, Divinity."

Perhaps next year we may see a triangular match between the three faculties, *pace* the Bishop.

IS THE ELECTRIC ARC LIGHT IN LIGHTHOUSES ALWAYS RELIABLE?

THE recent lamentable disaster to the *Drummond Castle* has once more raised the debated question of the superiority of the arc electric light over gas for lighthouse illuminating purposes. The following facts, at any rate, have a strong significance and would appear to decide emphatically in favour of gas or oil. Soon after the arc light was installed at Dungeness the Trinity House yacht *Galatea* went ashore quite close to the light and those on board declared their utter inability to see it. Again, in 1879, the *Bast* was wrecked close to the powerful electric lights at the Lizard, and in 1892 the Norddeutscher Lloyd steamer *Eider* went ashore within a short distance of the electric light of St. Catherine's Point, Isle of Wight; and lastly there is the recent instance of the *Drummond Castle* striking the rocks in close proximity to the electric light of Ushant, which the survivors have stated could not be seen. All these facts raise a very serious question as to whether the electric light can be trusted in the varied conditions of weather constantly met with at sea. It is well known that the rays of the electric arc light (powerful though they are) are largely absorbed by mist, fog, or small rain. In other words the actinic rays in which the electric light abounds fail to penetrate finely suspended moisture. On the other hand the yellow rays of oil or gas are seen under similar conditions at a greater advantage and a greater distance. Possibly it would be better if a large battery of incandescent electric lights were substituted for the arc lamp. We trust the subject will be fully enquired into by the Board of Trade.

COUNTRY HOUSES AND POLLUTED WELLS.

THE danger attending the taking of houses in the country for the summer season without making full inquiry into the water supply has frequently been alluded to in these columns. Nearly every farm house derives its water supply from a shallow well, and it is only too commonly known that in the great majority of cases the water obtained therefrom is more or less seriously polluted. Unfortunately, in consequence of the present state of the law, these wells can only be closed by a magistrate's order, and then only if there be proof that the water is actually injurious to health. For this reason the efforts of the most energetic medical officers of health and sanitary authorities to obtain purer water-supplies are often frustrated. From time to time, however, cases occur in which the owners of such houses have to pay dearly for neglecting to provide proper water-supplies. Within the last few days such an instance has been reported. A man hired a farmhouse in Essex for a season and sent down his family. The children were first attacked with diarrhœa; then one became more seriously ill and was found to be suffering from typhoid fever, from which the child unfortunately died. The water upon examination was found to be polluted, and the parent of the deceased child commenced an action in the Queen's Bench Division against the owner for damages. Lord Russell, in summing up, said there were two questions for the jury to consider: (1) Was the water so polluted as to be unfit for human use; and (2) Was the illness of the children caused by the polluted water? The evidence was of the usual contradictory character, but the jury decided in the affirmative on both points and awarded the plaintiff £75 damages. The conclusion of the case was in one sense satisfactory, but no amount of damages can compensate for such a loss. Still, the fact that farmers and others who let such houses are liable to be mulcted in damages for illness caused by drinking water from their polluted wells cannot fail to produce a salutary effect. Before renting rooms in such places the quality of the water-supply should be carefully inquired into, and where there are grounds for the slightest suspicion the place should be avoided unless some certificate is produced from a medical officer of health or other competent person, *who has not only examined the water, but also investigated the source from which it is derived*, to the effect that it is safe for use for domestic purposes. If this precaution were taken, not only would the health of the visitors be safeguarded, but farmers and others letting such premises would seriously endeavour to provide supplies of water above suspicion. This is no imaginary danger, and the father of a family who ignores it has himself chiefly to blame if disastrous results follow the neglect of such a simple precaution as we have indicated.

MODERN METHODS OF REMOVAL AND DISPOSAL OF EXCREMENT.

DR. G. V. POORE is a powerful champion of what he has called the "living earth," and in an interesting paper which he recently read before the Royal Institution of Great Britain he returned, under the title of the "Circulation of Organic Matter," to the subject which he has so fully set forth in his "Rural Hygiene," and also in an address which he delivered at Nottingham in October, 1895, and which was published in our columns on Dec. 14th of the same year. Dr. Poore's views are, therefore, doubtless known to many of our readers, but we may, perhaps, recall the fact that he regards the water-carriage system of the present day as unscientific in principle and wasteful in practice—as robbing the soil of its natural nutriment, poisoning our rivers, and tending to spread water-borne diseases. The return of organic refuse, whether solid or liquid, to the superficial layers of the soil, where it may be subjected to the influence of the nitrifying organisms, is the end for which Dr. Poore contends. Water under pressure has been, he thinks, by no means an unmixed blessing, inasmuch as it has tended by rendering high buildings possible to encourage overcrowding with all its attendant evils. Dr. Poore advocates, it would seem, more individual freedom in the matter of the disposal of excrement. He thinks that water should be sold by meter so as to prevent useless waste, and that those who possess waterclosets should alone be taxed for them, while the householder who prefers to return the excrement to the soil of his garden should be allowed to do so and not be compelled to adopt the water-carriage system against his will. In Dr. Poore's opinion this vast metropolis and other large cities have hopelessly blundered, and have, by borrowing large sums of money which those who come after them will have to pay, crippled the future as well as the present; for places such as these there is no salvation—as they make their bed so they must lie on it. To the still rural districts Dr. Poore looks, however, with hope, and he trusts that they will not follow in the wake of the cities, but that they will maintain in a certain degree at least their rural

characteristics, each house being furnished with a garden sufficient for its excremental needs, if not also for the purpose of providing drinking-water. As an illustration of what may be done in this respect Dr. Poore again refers to the arrangement he has made in his country house in the Thames Valley. Here in the midst of a slop-watered and excrement-manured garden he has excavated a well some five feet deep only, which is so constructed as to preclude the possibility of any water entering it save from below, and hence any water reaching it from the surface must have first been subjected to the purifying processes of the soil. The water of this well has been examined on several occasions both bacteriologically and chemically and has come well out of the ordeal. All the drinking-water of the house is supplied from this well, but it seems that to save pumping and a separate cistern the Grand Junction Water Company is asked to contribute the bath water, which after use irrigates the soil. Assuming that the surface soil is not overwrought during wet weather there should, on theoretical grounds, be but little risk of specific pollution of the well water, but we must confess that we should look upon it all with some disquietude during periods of heavy rain. Further than this, in the event of each garden being furnished with a well, we should be uneasy lest our neighbours exhausted the subsoil water, or that one of them, unmindful of the necessity of submitting all excrement to surface influences, buried excreta in a hole, and thus, perhaps, polluted our water. In districts on impermeable formations we fail to see how this irrigation by slop water and this obtaining of water from a shallow well are to be brought about in a reliable fashion. The relation of water under pressure to overcrowding has certainly two sides, inasmuch as this provision has enabled urban populations to spread themselves out in a fashion not otherwise possible. There is, however, much in Dr. Poore's arguments which is worthy of consideration in reference to rural districts, and, as he points out, our vast importation of food should do much, if our sewage could be turned to the land, to enrich it. The question is in large part an economical one, and it is conceivable that by spreading out our population in the manner presumably suggested we should spend more on getting from place to place than we should lose in parting with excrement. Allotments near towns do certainly, as we think Dr. Poore observes, provide a means for disposing profitably of excrement, but at the same time they often lead—at least, such is our experience—to the hoarding up of refuse in very undesirable localities.

POISONS IN CAKES.

WE commented in a recent number[1] upon the extraordinary ease with which the public could obtain poisons if they were only ordered in a prescription, and suggested that some check should be put upon the sale of poisons by the prescribing physician putting a note upon the prescription to the effect that a re-signature was necessary if the prescription was made up more than a certain number of times. Apart from prescriptions we had thought it difficult to procure poisons, excepting always carbolic acid, so as to be dangerous—i.e., the sale is fenced round with laws and rules and Acts of Parliament, &c. For instance, no one is supposed to be able to buy arsenic in quantities under 10 lbs. unless mixed with soot or indigo. Apparently, however, this rule can be very easily disregarded if we may judge from the following case. On July 1st a man named George Smith walked into the Seamen's Hospital at the Royal Albert Docks saying, "I am poisoned; I have eaten a piece of rat cake." He died the same night, and at the post-mortem examination evidences of arsenical poisoning were found. This is the fourth or fifth case which has happened in the district within the last few weeks. The jury, however, did not seem to think much of it, for they merely recommended the cake should be better wrapped up and properly sealed, and the seller promised to do this. This is all very well, but the packet must be undone for the rats, and we suppose it is the nibbled pieces that get thrown away into the road, where the East-end child or man picks them up and eats them with fatal results. We have not quite reached to the pitch of mediæval Italy when there was

> ". . . . . death in an earring, a casket,
> A signet, a fan-mount, a filigree basket,"

neither are these articles in much request in Canning Town, but if cake containing a large amount of arsenic can be bought and strewed about the streets in this light-hearted manner we are within measurable distance of a great decrease in the population, and surely the resources of civilization are equal to destroying rats in a manner less fraught with danger to the health of the community.

[1] THE LANCET, June 20th, 1896.

PENSIONS FOR ASYLUM OFFICIALS.

THE present time would seem to present a convenient opportunity for arriving at some definite settlement regarding this question. The Parliamentary Committee of the Medico-Psychological Association have, therefore, resolved to petition the Lord Chancellor to introduce into the new Lunacy Bill, which has recently been drafted, a clause whereby a definite scale of retiring allowances, to be fixed by Parliament, shall hold good in every county. At present the county councils possess a discretionary power in the matter, and great diversity of procedure prevails in different parts of the country, some councils even refusing to entertain the idea of a pension scheme. Instances of the inequality and uncertainty of superannuation allowances to asylum officials, both under the old and new *régimes*, can be freely cited. In these circumstances it is to be hoped that the position of those engaged in the care and treatment of the insane as regards assured pensions will be secured under the new Bill, and that in the pursuance of their anxious, arduous, and frequently dangerous duties as servants of the public they will be relieved of the uncertainty concerning future provision, when their capacity for work, by reason of age, accident, or bodily infirmity, has become impaired.

ANNUAL DINNER OF THE EPIDEMIOLOGICAL SOCIETY.

THE members and friends of the Epidemiological Society dined together at the Grand Hotel on July 3rd, the President, Mr. Shirley Murphy, being in the chair. Among the large number present were Sir Richard Quain, Mr. Christopher Heath, Mr. Brudenell Carter, Dr. Forman (who were the guests of the President), Dr. Thorne Thorne, Dr. Whitelegge, Dr. Tatham, Dr. Klein, Dr. Little, Dr. Sweeting, Dr. Bulstrode, Dr. Coupland, Brigade-Surgeon-Lieutenant-Colonel J. Lane Notter, Fleet-Surgeon Theodore J. Preston, and Brigade-Surgeon J. B. Scriven. After the usual loyal toasts the President proposed "The Epidemiological Society" and pointed out that the society, which would attain its forty-sixth year on the 30th of the present month, was always in the past, and probably always would in the future be, a small society, inasmuch as it was only possible for a comparatively limited number of medical men to devote their time to the study of epidemiology, but the society must be judged more by its work than by its size, and he referred especially to the inquiries which were made shortly after its constitution by the society in connexion with vaccination, and which supplied important material for the consideration of Parliament when the vaccination law was

being revised. The association of the society with this subject had led to the decision to found a Jenner medal in memory of the greatest medical service which any man had ever rendered to his fellows. Touching upon the question whether in the multiplication of societies the Epidemiological Society should preserve its identity, he claimed that the work before it would be better done by a few people who met solely for the study of epidemic disease than if by association with other societies its subject came to be thought of as only one of several, each of which made demands for attention. The toasts of "The Army" and "The Navy" were responded to by Brigade-Surgeon Scriven and Fleet-Surgeon Preston. Dr. Whitelegge proposed "The Visitors," and Sir Richard Quain and Mr. Christopher Heath replied. Dr. Forman proposed "The Public Health Service" and referred to the hope that was entertained that eventually the Medical Department of the Local Government Board might be created a separate department of the State presided over by a minister of health of Cabinet rank; Dr. Thorne Thorne and Dr. Louis Parkes replied in suitable terms. In response to the toast of "The Chairman" Mr. Shirley Murphy referred to the admirable services rendered to the society by Dr. Sweeting, the treasurer, and by Dr. Bulstrode and Dr. Coupland, who duly responded.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE museum of the College has acquired during the past year many new and valuable additions in all its departments. In the department of Pathology there are numerous specimens worthy of note. One specimen shows the Muscles of the Leg in a case of Paralysis, very much atrophied, with much fatty hyperplasia. Another specimen is a Lipoma of the Breast which has in two places undergone extensive degeneration, resulting in the formation of a saponaceous substance. A very large Sarcoma, measuring 18 in. in length, was removed by Mr. Pearce Gould from between the layers of the small omentum; it had pushed the stomach downwards into the pelvis; the man recovered from the operation and was alive nine months later. A stomach, duodenum, and jejunum are shown, all of them affected with numerous Polypi; in this case there can be little doubt that the polypi were infective. Mr. H. G. Howse presented a portion of Omentum which had been removed from a scrotal hernia; it had become formed into a cylindrical mass, 16 in. long and 4½ in. in diameter; inferiorly it was attached to the sac-wall. A Meckel's Diverticulum, in a case under the care of Mr. R. H. Lucy, had become invaginated into the ileum and had then led to intussusception. There were several specimens of cystic kidneys, and in one case they had come from an anencephalic fœtus. Mr. Hurry Fenwick presented a Bladder, from which he had removed two years previously a prostatic overgrowth by the suprapubic incision; the patient had had no difficulty in micturition, and in the specimen no abnormality of the bladder can be perceived. Some Epithelial Casts of the urethra from a case of membranous urethritis were presented by Mr. W. H. Battle. Mr. B. Smythe has presented a dermoid Cyst of the Ovary consisting chiefly of an immense number of pellet-like masses about the size of peas; these are composed of a granular fatty substance, and their presence undoubtedly indicates that the cyst underwent rotatory movements. There is also a very fine skeleton from a case of Osteitis Deformans. Eight casts illustrating the Deformities of Leprosy were presented by Professor Anderson Stuart of Sydney. Fifty-one drawings, chiefly of diseases of the skin, were added during the year. Among the teratological additions may be mentioned two specimens presented by Mr. H. H. Clutton, of Congenital Absence of Tibia; one was dissected to show the muscles and the other to show the bones. In the Physiological series the following should be mentioned. 1. A portion of the Cranium of a Crocodile, showing the communication between the two tympanic cavities, and also a special canal (the siphonium) by means of which air is transmitted to the articular bone of the lower jaw. 2. Sections of the Lamprey (Petromyzon marinus), showing the notochord. 3. Several groups of Barnacles (Lepas fascicularis); these attach themselves to minute, floating, foreign bodies, whose buoyancy soon becomes insufficient for their support; a secretion from the cement glands is then poured out on the surface of the foreign body in large quantities, covering it to a considerable depth with a natural float in the form of a spongy reticulum full of air bubbles. 4. Specimens of Conus erythræensis, showing how the inner whorls are in part absorbed when they are covered over by the outer whorls. 5. Dissection showing the venous system of a Frog injected with blue; the renal portal system is well seen. 6. The transparent shell of Cymbulia Peronii; it is thick and of a tough, gelatinous consistence; by means of its extreme transparency the pteropod escapes observation. In the department of Normal Human Anatomy there are several interesting dissections: (1) the Skin and Muscles of the Face as seen from behind; (2) the Muscular Structures forming the Floor of the Mouth; (3) the Lips with their Mucous Glands; and (4) the Soft Structures of the Wrist dissected off the bones, showing the connexions of the tendons, vessels, and nerves.

MODES OF DEATH IN PERIPHERAL NEURITIS.

IN the third volume of the Edinburgh Hospital Reports Dr. George Gibson and Dr. Fleming have an interesting paper on this subject. In one class of cases of this disease, they remark, complete recovery is the sequel; in another permanent damage to the peripheral nerves may remain, while in still another there may be superadded evidence of injury to the central nervous system such as to cause the symptoms of ataxic paraplegia, of spastic paraplegia, or disseminated sclerosis. But a certain proportion of cases undoubtedly terminate fatally. In the majority of these the writers say that death results from failure of the organic centres, more especially of those subserving the respiratory functions. The following case is then related as a striking example of this mode of death. The patient was a woman aged thirty-eight years, who had been healthy until a fortnight before her admission to hospital. She then had a shivering attack and other symptoms of febrile disturbance. She went to bed for a day, but resumed her household duties for nearly a week, when she was again compelled to take to her bed. After being four days in bed she found when she attempted to walk that she staggered and had to be helped into bed again. She then had severe backache, weakness in the hands, legs, and feet, and sleeplessness. It was found that she had not been accustomed to eat good or abundant food, but she was very fond of whisky and would sometimes drink considerable quantities. On admission she was found to have weakness and numbness in the hands, feet, and legs, little or no sensory impairment with regard to temperature, or tactile or painful impressions, but considerable disturbance of muscular sense. The plantar and patellar reflexes were not obtained, the organic reflexes were unimpaired, and there was no evidence of visceral disease. No reaction to faradaism was found in the muscles of the lower limbs. Those of the upper reacted feebly, especially those of the right arm. The patient was very restless and irritable and slept badly. Three days after admission she rather suddenly became unconscious and showed marked cyanosis about the face and lips. There

was no movement of the diaphragm or the lower intercostals. Artificial respiration was resorted to, and in a short time she appeared to be much better and answered questions clearly and rationally. Artificial respiration was kept up for over sixty hours in all and during this time she could only breathe naturally for an occasional half minute. In spite of the subcutaneous administration of strychnia and various other remedies, as well as an abundant supply of fluid nourishment, she ultimately died from exhaustion. Post-mortem examination confirmed the diagnosis of peripheral neuritis, and many interesting details of the morbid appearances are given, for which the original paper should be consulted. The case also possesses peculiar interest because it illustrates the possibility of the sudden onset of grave symptoms in what is usually regarded as a chronic disease.

AN ANTIDOTE FOR SNAKE POISON.

IN a recent work published in Paris by the Société d'Éditions Scientifiques, 4, Rue Antoine-Dubois, Dr. A. Calmette gives in epitome the results of his investigations into the nature of snake poison and the best way of treating envenomed bites. The only drugs he has found beneficial are the hypochlorite of lime and the chloride of gold, the use of the latter having been recommended by him in 1892; but he maintains that in the serum of immunised horses there exists a perfect antidote against snake poison. This serum is now prepared in bulk at the Pasteur Institute in Lille, of which Dr. Calmette is the director, and in his opinion the authorities in Australia, India, South Africa, and other countries, where every year there is a considerable mortality from snake-bite, should lose no time in procuring a supply. The price of the book is 3 francs.

THE REGISTRAR OF THE GENERAL MEDICAL COUNCIL.

NOT many of those who consult the publications of the General Medical Council are aware of the literary and scientific attainments of the courteous registrar, on whom there rests so much responsibility in connexion with the preparation of these bulky volumes. This gentleman—Mr. W. J. C. Miller, B.A.—has filled his important position since 1876, and devotes his leisure moments to pursuits of a most varied character, addressing the meetings at the Richmond Athenæum, writing in a charming style his impressions of rural and woodland scenes, and editing a mathematical periodical which was originated by him and has now reached its sixty-fifth half-yearly volume. A native of the south coast of Devonshire, where he was born in 1832, Mr. Miller from his boyhood loved to observe the ways of wild birds and animals; he subsequently developed a taste for serious mathematical study, and he was for some time a journalist. So much accomplished in fields of mental effort lying so widely apart betokens an industry and an intellectual alertness the possessor of which may well be envied.

DIPHTHERIA IN FLINT.

THE last monthly report of the medical officer of health of the borough of Flint shows that there have been 21 fresh cases of diphtheria in the town in 11 newly invaded houses, the disease having accounted for 3 deaths. The past history of the place in the matter of fatal diphtheria prevalence is very bad, there having been 6 deaths in the first quarter of last year, followed in the next three months by 5 deaths, by 4 in the succeeding quarter, and by no less than 10 deaths in the first quarter of this present year. It is not so long since Dr. Reece of the Local Government Board investigated a prevalence of the disease in Flint, and the place certainly does not appear to have profited much as the result of the elaborate report which was issued. The medical officer of health speaks of the terrible responsibility resting upon the people "with regard to the spreading of the disease." If this means that the precautionary measures which are adopted by the sanitary staff are nullified by the wanton manner in which the residents continue to permit the intercommunication of sick and healthy the officials are to be pitied, since in the case of a disease such as diphtheria there are infinite opportunities for dissemination of infection, particularly by the medium of schools.

CAMBRIDGE GRADUATES' MEDICAL CLUB.

THE annual dinner of this club was held on July 2nd at Limmer's Hotel, Conduit-street, W., under the chairmanship of Dr. W. H. Dickinson. Members and their guests to the number of fifty-seven were present. After the loyal toasts the chairman, in proposing "The Health of the Club," drew attention to the fact that it had been found desirable to change the name of the club by transposing the words "medical graduates." For the future the following title—Cambridge Graduates' Medical Club—would be employed, since it more accurately described the constitution of the club and the qualification for membership. Dr. R. D. Brinton proposed "The Guests," which was happily responded to by Dr. J. G. Glover and Mr. Kendal Franks. After the chairman's health had been eloquently proposed by Dr. Isambard Owen, Mr. Page read a letter from Sir George Humphry regretting his inability to be present and wishing all his former pupils success and happiness in the future. In reply a letter of sympathy and solicitude was by the unanimous wish of those present sent to their former teacher.

THE LONDON WATER-SUPPLY.

THE committee appointed to consider the schemes of the various companies for obtaining further supplies of water are to be congratulated on concluding their labours so early as on Tuesday last. Doubtless the inquiry was expedited by the able chairmanship of Sir Joseph Pease as well as by the clearness and conciseness which characterised the evidence of the majority of the witnesses. Up till Tuesday the Bills with amendments promoted by the Lambeth, Chelsea, and New River Companies and the Staines Reservoir Bill and the joint scheme promulgated by the West Middlesex, Grand Junction, and New River Companies had been passed and there remained to be considered the Bill of the Southwark Company. The fate of this Bill, however, was soon decided by what the chairman described as the very able address and clear testimony given in regard to it by Sir Henry Knight. The committee expressed the opinion that the projected works could be postponed without detriment to the public interests. The company had already 300,000,000 gallons of storage reservoir capacity granted in 1894 which they had not yet put into action, and, according to Sir H. Knight's evidence, 200,000,000 gallons would be sufficient to meet the needs of the company until 1901. Altogether the committee have held twenty-seven sittings.

CEREBRAL HÆMORRHAGE AND WHOOPING-COUGH.

IN a recent number of the *Deutsche Medizinische Wochenschrift* Dr. Oppenheim relates an interesting case, of which a brief abstract appears in the *Neurologisches Centralblatt*. The patient was a boy aged eight years, who, while suffering from whooping-cough, became suddenly unconscious. Restlessness then set in, followed by deep somnolence. There was no rise in temperature and

the pupils reacted normally and the tendon reflexes were undisturbed. Then there were twitchings of the right side of the face, which spread over the whole of the right side and recurred with great frequency. After three days there was great diminution both in the frequency and severity of the convulsions, there was also flaccid paralysis of the right side with loss of knee-jerks, and on the sixth day consciousness returned, but there was considerable interference with speech. Recovery was rapid and in three weeks was complete. Dr. Oppenheim regarded the condition as the result of the rupture of a vessel in the left hemisphere in consequence of a paroxysm of cough, and he suggests as possibly related to the accident a habit the boy had of holding his mouth and nose at the commencement of a paroxysm. But it is well known that cerebral complications occur during whooping-cough, even when no such aggravation may be present.

THE LEICESTER BACTERIOLOGICAL INSTITUTE.

RECOGNISING the important part played in public health by certain diseases common to animals and man and especially with regard to food and milk-supply, the Council of the Leicester Bacteriological Institute brought before the notice of agriculturists and dairy farmers at the Royal Agricultural Society's Show at Leicester held last June facts with regards to these diseases, and gave those interested an opportunity of seeing for themselves the micro-organisms and their mode of growth. The space secured was in a commanding position, and the exhibit formed an interesting and instructive feature at the show. The fact that this was the first occasion on which any such exhibit had appeared in the country drew large numbers of medical men, veterinary surgeons, farmers, members of County Councils, and others desirous of obtaining information on the subject. Enlarged photographs illustrating the different bacilli were shown under microscopes; pamphlets giving information concerning the various diseases and statistics of the results of the latest experiments were distributed; and antitoxin serums, prepared in the laboratory of the Institute, were exhibited. Demonstrations were given at intervals by the director (Dr. J. Andrew Turner), at which the mode of propagation and the infective properties of the diseases were explained. We congratulate the institute and its director upon the practical nature of their services to local agriculture.

VACCINATION IN THE EDMONTON UNION.

IT is only a short time since the gentlemen elected to the Edmonton board of guardians were appealed to in the Hornsey division to stand on the anti-vaccination platform, and several allowed their names to appear on a widely circulated handbill as supporting the movement. Supporters of a certain administrative policy as regards other matters did not, however, suffer by reason of their refusal to associate in the attempt made to gain their allegiance to the cause of the anti-vaccinationists. Following quickly on this election, the Hornsey district council have passed a resolution requesting the Local Government Board either to call on the Edmonton guardians to enforce the Vaccination Acts or, failing this, to entrust the duty of carrying out the Acts to the council themselves. The guardians had the matter before them and had decided to permit the question to stand over until the Vaccination Commission publish their report. This having, however, met with opposition at the hands of a section of their body, the guardians are to discuss next Wednesday the whole question of forthwith proceeding to enforce the Acts. In the present state of chaos in this immense Union we have forcibly brought to our notice two strong points—namely, the inadvisability of entrusting to one board of guardians an area and population of the size and constitution of the Edmonton Union and the folly of such a course, especially where, as in this case, the wishes of the health body of a suburb of the size and importance of Hornsey to protect the public health are incapable of fulfilment because of recalcitrancy on the part of a poor-law authority. The situation is as absurd as it is anomalous.

WE desire to urge upon our readers the advisability of being present at the Royal Medical and Chirurgical Society's Rooms, 20, Hanover-square, on Thursday next, July 16th, to hear addresses from Dr. Glover, Dr. Woodcock, and Dr. Drage, candidates for the position of Direct Representatives of England and Wales at the coming election. The profession should certainly try to learn at first-hand the views of the gentlemen who are seeking their suffrages.

ON Monday last the Duke of Devonshire introduced in the House of Lords a Bill dealing with the constitution of the University of London. We hope to print the text of the Bill in a future issue, the crowded state of our columns preventing its publication in the present number. Some comments on the Bill, however, will be found in another page.

A CONVERSAZIONE and Distribution of Prizes by Sir James Crichton-Browne will take place at the Royal Institute Galleries, Prince's Hall, Piccadilly, in connexion with the Dental Hospital of London on Friday, July 24th. The reception by the hospital staff will be held at 8 P.M. and the distribution of prizes will commence at 8.30 P.M.

A LIFE-SAVING EXHIBITION in aid of the Guy's Hospital Re-endowment Fund was opened on Thursday, July 9th, at the Central Hall, Holborn, W.C. Demonstrations by the St. John Ambulance Brigade and life-saving illustrations by the Life-Saving Society are given each day until the close of the exhibition on the 18th inst.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, accompanied by Her Royal Highness the Princess of Wales, will open the Passmore Edwards Convalescent Home of Charing-cross Hospital at Limpsfield, Surrey, at 12 noon on Saturday, the 11th inst.

THE amount already received for the Middlesex Hospital Convalescent Home at Clacton-on-Sea, a picture of which will be found on page 138 of this issue, is £5200, inclusive of a magnificent donation of £1000 from Viscount Portman.

DR. SAMUEL WILKS, President of the Royal College of Physicians of London, has been appointed one of Her Majesty's Physicians Extraordinary in the room of the late Sir George Johnson.

THE DRAINAGE OF GUILDFORD.—The Guildford corporation has applied for permission to borrow the money necessary to complete their sewerage works—a sum of £8200. At present they have borrowed £42,000, the contractor's bill coming to £40,166, while land has cost the town £5000. The estimate for this work was £27,332, so that the cost of the scheme has been greatly in excess of expectations. Much of this, however, has been spent in making the undertaking complete and thorough, and the inspector raised no objections; in fact, he suggested that the sum requested should be increased to cover a liability which was not perceived when the application was made. Expensive lawsuits have apparently been general in the neighbourhood. One in respect to the works cost £250, the sum of £40 being originally in dispute.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XXVII.

Wakley's first Contest for the Borough of Finsbury.—The Economy of his Candidature.—The Second Contest.—The famous Tom Duncombe.—The Third Contest.—The Interposition of Mr. Hobhouse.—The Fairness of Wakley's Tactics.—His Success.—Enthusiasm in the Borough.

WAKLEY replied to the questions of the electors of Finsbury in a manner satisfactory to them and in so doing committed himself to a parliamentary programme from which he never swerved. He declared himself to be in favour of an extension of the suffrage, of triennial elections to Parliament, of the removal of property qualifications from candidates, of the repeal of the Corn Laws, of the abolition of slavery, and of the suspension of the Newspaper Stamp Act. He held that as to broad lines of conduct the electors had a right to control the elected and to compel him to ratify pledges given when they entrusted him with their suffrages, for which reason he objected to the Septennial Act and would have parliamentary elections made for shorter periods. He expressed himself strongly, though in general terms, upon the necessity that existed for a thorough overhauling of much of the legal procedure of the country with a view of affording the poor litigant a better chance against a wealthy adversary.

He then put the words of the electors promising to protect their candidate from electioneering expenses of every description to a practical test by refusing to take any part in the business of the election. He did not personally canvass a single voter, he entered but one of his committee-rooms during the whole contest, and then simply in the desire to remove a wrong impression that he was careless of the issue and blind to the exertions of his committee. He addressed a few meetings of the electors in various parts of his large constituency, but so short an interval—less than a fortnight—remained between his acceptation of the invitation to contest the borough and the day of nomination that he had not time to cover all the ground.

The nomination took place at Islington-green on Saturday, December 8th. The candidates were the Right Honourable Robert Grant, Lord Glenelg's brother; Serjeant Spankie; Temple, a wealthy barrister of good family; Charles Babbage, the inventor of the calculating machine; and Wakley; and at the show of hands the returning officer declared that the choice of the electors had fallen upon the first and last named. The others demanding a poll the polling was commenced on the following Monday, and two days later the number of recorded votes for the respective candidates was announced as follows:—

Grant	4278
Spankie	2848
Babbage	2311
Wakley	2151
Temple	787

It should be mentioned in reference to the general position occupied in the first poll of Finsbury by the Radicals that Mr. Grant was an especially strong candidate and received much support from the other side. Although a Conservative[2] in politics he was the champion of the movement for the abolition of the civil disabilities of the Jews, a movement which formed a specific part of the Radical programme, and received the support of Macaulay, Hume, and O'Connell. He was a famous scholar, with an almost unprecedented record at Cambridge, had held many legal appointments, and had sat in Parliament for fourteen years, but these things did not avail him in his candidature of Finsbury so much as his untiring support of the Jewish cause, with its implied hostility to narrow clericalism.

The election was conducted in a peaceful and orderly manner, the respective candidates being exceedingly courteous in their demeanour towards each other and evidently friendly in their rivalry. Mr. Spankie in particular went out of his way to refer to the consideration he had received at the hands of Wakley and Wakley's committee. Mr. George Rogers, the chairman of this committee, was a local tradesman, and Wakley's fellow churchwarden at St. Giles's-in-the-Fields. He at once gave a touch of his quality as the organiser of a real reform campaign, one where the people's minds and not their self-interests dictated their choice. He took complete charge of the pecuniary business connected with Wakley's candidature with such economical effect that the whole expenses of the election in this enormous constituency—including printing, the sums paid to poll-clerks and check-clerks, and the sum paid as a fifth share of the expenses incurred for the erection of five polling-booths—scarcely exceeded £150. Mr. Rogers, in a letter to Wakley, states that the expenses of the successful candidates amounted to "thousands," which is a vague figure supplied by a biased witness, but the Reform Bill and speeches during its passage through the House had directed so much attention to the enormous expenses that had been incurred of necessity by parliamentary candidates that the fact that Wakley's candidature had cost anything like so small a sum led to considerable correspondence. Letters poured in upon Wakley and his committee to know how it was possible, the writers not perceiving the difference between the position of the man who approaches his constituency because he wants to go into Parliament and the position of the man whom his constituency approaches because they desire him to be their representative. As a result Mr. Rogers, not without pardonable pride in his own economy and the excellence of his management—who does not know that honest conceit of the organiser?—wrote to THE LANCET to show how it was done, and Wakley in publishing the letter headed it "Exposures at the Finsbury Election," a title which was apt enough on the face of it, but which, having regard to the contents, was bound to irritate the returning officer.

Mr. Rogers allowed, roughly speaking, £100 for individual expenses of which he gave no account, feeling probably that it was little enough to spend on advertisement of a candidate's virtues in such an enormous borough as one numbering a population of 330,000 and some 16,000 electors. But Wakley also had to pay, like the other four candidates, one-fifth of the expenses of erecting poll-booths and hustings, of securing the attendance of poll-clerks, of painting and fixing of notice-boards and printing voting-papers and of sundry other trifling things necessary to the business of the election. The bill for these as rendered in the lump was £463, making Wakley's share £92. Mr. Rogers returned it to Mr. Satchell, the returning officer, saying that he could not pay it as many of the charges were illegal. Mr. Satchell amended his charges and sent in an account for £286, Wakley's share being £57. Mr. Rogers said that this second sum was nearly double as much as Mr. Satchell was

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI., XII., XIII., XIV., XV., XVI., XVII., XVIII., XIX., XX., XXI., XXII., XXIII., XXIV., XXV., and XXVI. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th, 14th, 21st, and 28th, April 4th, 11th, 18th, and 25th, May 2nd, 16th, 23rd, 30th, June 6th, 13th, 20th, 27th, and July 4th respectively.

[2] The word "Conservative" was invented by John Wilson Croker, and had been used five years before this date, though it hardly became a general term until after the accession of the Queen. Grant, however, was a Conservative in contradistinction to a Tory.

entitled to charge and personally tendered £37 12*s.* in full discharge of all Wakley's separate liability. This sum Mr. Satchell accepted under protest, saying that it was not the sum that was due, but that he would take it so as to bring to an immediate close any relations with Mr. Rogers. To which Wakley and Rogers retorted that, as the money was not theirs to spend, but belonged to a committee to whom a stewardship would have to be rendered, it was impossible that more than the legal sum should be paid.

So Wakley's first attempt at entering Parliament stamped him as a man of his word and a very good pupil of Hume. He adopted a broad liberal policy and placed economy in the fore-front of it, and the result could hardly be other than gratifying to him. In the short space of a fortnight he so cordially recommended himself to the electorate that he polled over 2000 votes, 1400 of which were plumpers. The absence of Mr. Temple from the poll might have seen Wakley member for Finsbury at his first attempt.

His second opportunity followed very soon, and being accepted by him with eagerness again led to failure. But as in the first instance the circumstances under which failure came raised the candidate still higher in the estimation of his committee and of the whole electorate as a patriotic and determined man. The Right Honourable Robert Grant was appointed to the office of Governor of Bombay, and Wakley was again called upon by his committee to present himself on the hustings to put forward his and their opinions and solicit suffrages upon them. In a characteristic open letter to the medical profession he begged the medical electors of Finsbury to continue their labours in his behalf, clearly implying that he was especially desirous of being elected as a medical reformer, although he had identified himself of necessity as well as through conviction with the general progressive cause. Unexpectedly, however, a complication again occurred in his candidature. Until the day for nomination was very near at hand there had been only three candidates for Mr. Grant's seat—Mr. Pownall, an influential Middlesex magistrate; Babbage, standing as a Whig; and Wakley as a Radical. Suddenly there appeared on the scene Mr. Thomas Slingsby Duncombe, a Radical also, and a man of no small importance. A beau, a wit, and a trifler, yet an industrious man of affairs; an aristocrat, owing all his pleasures in life to the privileges of his birth and position, and a Chartist in politics before the just and unjust discontents of the nation had crystallised into the famous demand for a Charter; a puritan in public business and the intimate associate of Lords Alvanley, Deerhust, and the leaders in the social excesses of the Regency; careful of the people's welfare and hopelessly prodigal of his own goods, Tom Duncombe was the very man to commend himself to the enormous constituency of Finsbury—the very man to turn the hearts of a mixed electorate from a Conservative predilection to an ardent affection for the Radicalism of which he was the humorous and fascinating prophet. There was no central organisation in those days to prevent a multiplicity of candidates presenting themselves on the same ticket (to use a modern Americanism), and it was left to such superabundant wooers of the constituency to arrange among themselves how best the common enemy should be defeated. Duncombe and Wakley came to such an arrangement immediately. They agreed that whichever of them should have polled the larger number of votes on the first day should publicly release his pledged supporters from the onus of plumping, and, further, should warn them that the primary object was to defeat Mr. Pownall, the secondary to return their particular favourite of two persons pledged in large matters to vote in the same way. Nothing could have been more graceful than Wakley's manner of falling in with this arrangement. It must have been a great disappointment to him to have had his pre-emption contested, yet he had the admirable sense to see that for a candidate who placed in the fore-front of his programme the right of the people to be served by whomsoever they pleased it would be illogical to object to their exercise of choice. Babbage was always out of the running, his scientific attainments forming no recommendation of him to the constituency, while his politics were not sufficiently progressive to render him a true ally of the Radicals. He stood in the Liberal interest, but he was a transcendental mathematician and not the stuff of which popular legislators are made. Duncombe was different. If a group of Finsbury electors, uncertain of Wakley's complete fitness, liked to invite Duncombe to come to assist them in breaking down the Tory power and replacing the scholarly Mr. Grant by a thorough-going Radical, Wakley perceived that he must allow their right to do so. His clear duty was to enter into a compact with Duncombe by which it should be ensured that the better man of the two should also be too good for Mr. Pownall. Duncombe's immediate followers were, perhaps, more numerous. They were certainly earlier in the field than Wakley's, and on the second day Wakley practically withdrew from the contest. The electors in the reform interest, unpledged to either candidate, had only been waiting to learn for whom to vote in their solidity. They at once flocked to the poll and returned Duncombe at the head with 2514 votes. The figures were as follows:—

Duncombe	2514
Pownall	1915
Wakley	695
Babbage	379

Wakley's figures represent the votes that he received on the first morning only, after which he virtually withdrew from the candidature.

His conciliatory conduct had its very prompt reward. In January, 1835, less than seven months after the second unsuccessful candidature, the country was involved in the second general election after the great Reform Bill. The two sitting members, Mr. Serjeant Spankie, Conservative, and Mr. Duncombe, Radical, presented themselves for re-election, and Wakley offered himself in opposition to the former; but neither Pownall nor Babbage essayed his fortune again. But the reform party for the third time was not unanimous in its choice. Mr. Henry Hobhouse, the brother of Sir John Cam Hobhouse, came forward in answer, as he said, to an invitation from the Radical interest, so general that he could not help securing the seat for the reform party if the promises made to him were kept.

Wakley's faithful committee regarded Mr. Hobhouse as a Whig, and therefore a covert foe to reform more to be dreaded than any reactionary Tory, and strongly objected to his being, as they considered it, foisted on the borough. So Wakley was again placed, by want of proper organisation in the Liberal party, in the disagreeable situation of not being perfectly certain whether the electors in general would consider his candidature as tending to the interests of the party or no. Warmly supported by a large body of followers as he was, the violent language of the more immediate *entourage* of Cobbett and his school, and Wakley's own uncompromising speeches, no less than the sample of his actions supplied by his proceedings in opposition to the College of Surgeons, had scared off many of the voters who were willing to espouse the cause of Lord Melbourne generally and Tom Duncombe in particular. They wanted a Radical, but not an iconoclast, and they were not quite certain where Wakley might stop. Moreover, Wakley's fearless method of conducting THE LANCET had raised up for him many bitter personal enemies, who, without any patriotic or political object, would still consider it right to oppose such a man in every way and almost excusable to misrepresent him grossly if occasion should offer itself.

The split began to look serious, as neither Wakley nor Hobhouse considered it his duty to withdraw. Mr. Rogers took the first step. A meeting of the electors of Finsbury was convened by advertisement in the daily papers, at which upwards of 2000 persons attended, when it was resolved without a dissentient voice that Duncombe and Wakley should be supported "as the only candidates entitled to receive the votes of the electors at the poll in the reform interest." Mr. Hobhouse, however, persisted, refusing to recognise the meeting as a representative one and relying on the promises of what must have been a really substantial proportion of the electors, and these were loud in urging that Wakley should again retire rather than split the Radical vote and so allow Mr. Serjeant Spankie to keep his seat. Even so good a friend to Wakley personally and to the cause in which he stood as Joseph Hume seems to have taken this view, as the following private letter from him to Wakley shows:—

"As the time approaches," he wrote, "the conversation I had with you respecting Spankie comes more and more home, and my object is to keep Spankie out at all hazards. I want very much to see you and any two or three of your powerful friends, in order to see whether any arrangement can be made amongst the Reformers to compromise the differences and get in two reformers. The continued differences between Hobhouse and you must let Spankie in, which would be the greatest misfortune possible at this crisis, when all good men must join in keeping down the Tories. Let me hear from you soon for the good of the cause you and I so much advocate—good government."

Wakley had, however, issued an election address in which he had promised his supporters to abide by the result of the general meeting of electors. This meeting had confirmed him in his intention to stand, and he notified to Hume that he considered it as much his duty as his pleasure to proceed with the candidature. He published a manifesto declaring that he was not guilty of the folly or wickedness of hazarding the success of the cause by producing dissensions in the ranks—clearly implying that such folly and wickedness might be attributed to Mr. Hobhouse—and recalling to mind his position at the poll on the first occasion, when, coming late into the field and with four opponents, he received over 2000 votes, 1400 of which were plumpers. Having done nothing to forfeit the esteem of the constituency since, and much to gain its increased regard, he declared himself determined on this occasion to proceed to the poll with an unspoken conviction that on the last day of the election he should have the honour of addressing his friends in the proud position of their representative in Parliament.

With notable generosity under the circumstances and in proof of his real desire that the men should be returned whom the constituency wished to have as their burgesses he offered to make the same arrangement with his rivals as had been made at the preceding election. He promised to retire from his candidature on the second day of the poll if he were the last man of the three, and to throw all his influence into the scale of his more popular competitors in the cause of reform if such an arrangement were made reciprocal. Duncombe, who favoured Wakley's candidature, at once fell in with the proposal, but Hobhouse refused, and, although he was at the bottom of the poll on the first day, continued to stand and thereby to split the votes in the Radical interest until noon of the second day, when he finally withdrew.

The result of the poll fully justified Wakley in persevering, for the figures read as follows:—

Duncombe	4497
Wakley	3359
Spankie	2332
Hobhouse	1317

Wakley's return was received by his supporters in the borough with extraordinary enthusiasm. Duncombe, the Yorkshire squire and cosmopolitan man of fashion, was a highly creditable representative and a vastly popular man, and was carried on the strength of these undefined qualities to the head of the poll; but Wakley was the people's choice. He lived among them. He was churchwarden of a large parish and assiduous in the discharge of his parochial duties. He was personally known to hundreds of the electors as a man who desired to see the people well fed, well housed, prosperous in their health, and cared for in their sickness. He was a speaker after their hearts His deliberate choice of Saxon English and simple similes, no less than his somewhat unbridled exercise of talents for mimicry and invective, enthralled his poorer constituents, while the more substantial voters recognised, in addition to his eloquence, his dauntless courage, his tenacity of purpose, and his chivalry towards friend and foe in all these contests. On the result of the poll becoming known Wakley's horses were taken from his carriage on Islington-green and he was dragged home in triumph. Arrived there the crowd insisted upon hearing him over and over again from the balcony of his drawing-room. Some ten thousand persons assembled in the square, the railings of which were thrown down and considerable damage was done, the enthusiastic demonstration in his favour continuing till a very late hour at night.

(To be continued.)

CHOLERA IN EGYPT.

THE epidemic does not apparently show any signs of abatement in Egypt generally. There were 327 fresh cases and 290 deaths reported in the Fayoum Province during six days of last week. In the Gharbieh Province 147 new cases and 112 deaths were returned on the 4th inst.; and throughout the remainder of Egypt there were on the same date 342 fresh cases and 271 deaths (inclusive of those among the Egyptian troops at Wady Halfa). The returns issued on the 7th inst. give the following figures as regards the civil population. There is very little doubt, however, that the statistical returns do not include all the cases, for it is believed that many unregistered deaths from cholera take place in all parts of Egypt. At Alexandria, 3 fresh cases and 3 deaths; at Cairo, 10 new cases and 5 deaths; for the remainder of Egypt, 465 fresh cases and 403 deaths (including Gharbieh Province, 118 new cases and 112 deaths; Fayoum, 92 cases and 87 deaths; Assouan, 12 fresh cases and 11 deaths; and Wady Halfa, 21 fresh cases and 8 deaths). The foregoing figures are exclusive of those of the Egyptian army. The Government have, no doubt, great difficulties to contend with owing to the ignorance and apathy of the country people and their aversion to all sanitary precautions.

With reference to the present epidemic, and especially to the recent prevalence of cholera at Alexandria and Cairo and the water-supply of Egypt, we are very glad to notice that Mr. Pierpoint has called the attention of the House of Commons to this subject and elicited some information from Mr. Curzon in regard to it. Mr. Curzon had, however, nothing new to say in the matter; his reply to Mr. Pierpoint's question in reality consisted of references to Lord Cromer's report and to papers by Rogers Pacha, the head of the Egyptian Sanitary Department, published therewith. Our readers are already acquainted with our views in regard to the general questions of water-supply, sanitation, and irrigation and the relative merits of the projected Rayan and Assouan engineering schemes for Nile reservoirs. There is no need, therefore, to enter upon those subjects now. Mr. Curzon seems to shelter himself behind the statement that these are mainly matters that are dealt with by the Egyptian Government and that there are consequently no papers to be laid before Parliament in respect of them. The fact remains, however, that during our occupation of Egypt we have done most excellent service in almost every direction, save and except in that direction in which radical reforms are most urgently needed—viz., sanitation and the improvement of the public health.

THE ELECTION OF DIRECT REPRESENTATIVES ON THE GENERAL MEDICAL COUNCIL, 1896.

THE joint candidature of Dr. Glover, Dr. Woodcock, and Dr. Lovell Drage has been commenced by the issue of the following addresses to the profession:—

To the Registered Medical Practitioners of England and Wales.

FELLOW PRACTITIONERS,—The period for which you elected me for the second time as your direct representative, placing me at the head of the poll, will expire on Jan. 1st, 1897.

I have never regarded this election as other than the greatest honour of my life, and a proof rather of your kindness than of any merit of my own. In again soliciting the honour of election—which I do in association with my friends Dr. Woodcock of Manchester and Dr. Lovell Drage of Hatfield—I may be forgiven if I try to recall some of the questions which I have endeavoured to advance while I have been in the Council. Chief among these has been the development of the practical element in medical education. In one department this element is still very defective—viz., that of midwifery. But my colleagues in the direct representation and myself have striven earnestly to amend a discreditable recommendation on this subject, and with some recent success.

The purity of the Register depends not only on the care with which it is edited, but on the judicial action of the Council in removing from it names which would dishonour it. Accordingly, the perfecting of methods of inquiring into cases of professional misconduct has had my constant support and the adoption of measures for making removal from the Register known and effective.

The disciplinary function of the Council is undoubtedly limited, but it is not so limited as was thought in the early days of the Council; and since direct representation it has been found to have wider application than before. Any reasonable proposals for the increase of direct representation have always had my support, as any measure shall have for enabling the Council more effectually to deal with those who disregard the Medical Acts or who deceive the public. I am also of opinion that means must be found for the representation of Registered Dentists on the Council.

The question of midwives is being clarified by discussion. All are agreed that the lives of poor women must be guarded from the coarse risks of the perilous ignorance of so-called midwives. While I feel this very strongly I am fully alive to the importance of maintaining the principle of the Act of 1886, that midwifery is one of the three branches of the art of medicine, and that those who are not qualified in the other two can only act subordinately to members of the medical profession. And my endeavour shall be in regard to any legislation with respect to midwives to secure the clear recognition of this principle. The future of the profession depends much on the efficiency of the disciplinary function of its qualifying bodies and of the General Medical Council respectively, and on their harmonious and faithful coöperation. On my motion the Executive Committee lately considered and reported on the means whereby these powers may be improved and this coöperation can be secured.

It shall be my endeavour if you again elect me to sustain and extend the principle of direct representation and to justify it by my actions in the Council.

With grateful thanks for your past confidence,

I remain, your obedient servant,

J. G. GLOVER, M.D. Edin., &c.

To the Members of the Medical Profession in England and Wales.

GENTLEMEN,—At the urgent request of several members of our profession who have given indications of their interest in the question of medical reform, supported by the unanimous vote of the Lancashire and Cheshire Branch of the British Medical Association, of which I have the honour to be president-elect, and by the Council of the Medical Defence Union, I have consented to be nominated, in conjunction with Dr. J. G. Glover and Dr. Lovell Drage, for election to the General Medical Council as one of the direct representatives for England and Wales.

As a general practitioner, with no claims to professional distinction, it is not likely that I shall be known to the vast majority of the constituency whose votes will determine the result of my candidature, and I may be allowed to state that I have been in practice in Manchester for thirty years, during the whole of which period I have been a Poor-law medical officer, and for the last ten years I have been a certifying surgeon under the Factory Acts.

I am a member of the Central Council and of the Parliamentary Bills Committee of the British Medical Association.

I think the time has come when a vigorous effort should be made to secure an amendment of the Medical Acts, and among the most pressing demands in this respect are the reform of the constitution and procedure of the General Medical Council and the increase in the number of direct representatives thereon. If the General Medical Council cannot do more than it has hitherto accomplished for the advancement and protection of the interests of our profession because of the limitation of its powers, those powers should be extended. But I confess that I have not much hope of any great improvement in the procedure of the Council unless the number of direct representatives is increased. The corporations are manifestly over-represented, and it is absurd to expect that those who provide the means for its existence should be satisfied with an almost insignificant number of representatives upon the controlling body of the medical profession in Great Britain and Ireland.

It would be much more in consonance with the principles of self-government if the representatives of the corporations were elected by their respective Graduates and Licentiates instead of, as at present, by a small coterie, such as the Senate of a university. I think, too, that the dental profession should have at least one representative on the Council.

I am strongly of opinion that bodies issuing qualifying diplomas should be brought under greater control, and at the same time that power should be given to them to withdraw degrees and diplomas from persons whose names have been removed from the Medical Register.

I would make registration a *sine quâ non* and the maintenance of registration the only legal right to practise any branch of the profession. The practice for gain should be made penal, and not, as at present, the assumption of certain titles merely.

I am of opinion that it is derogatory to the dignity of our profession and inimical to its interests that medical men should accept appointments under associations which trade upon their qualifications, and I would support any resolution in condemnation of the holding of such appointments.

I am strongly opposed to allowing self-elected and irresponsible bodies to issue any form of certificate purporting to qualify its holder to practice any branch of the profession, and I would move that the authority granted by the Council in its last session to the Obstetrical Society to issue a certificate in midwifery should be withdrawn.

I have taken great interest in the so-called "midwives question," and while I am convinced that legislation is demanded in the interests of the public I am quite sure that the public well-being will not be secured by any measure for the registration of midwives as independent practitioners. Medical control must be secured as far as possible, and it should be made penal for any woman practising as a midwife or midwifery nurse to neglect to summon a registered practitioner in any and every case other than a normal labour. My views upon this question generally are indicated in the Bill drafted by a committee of the Lancashire and Cheshire Branch of the British Medical Associations of which I had the honour to be chairman.

This is a brief statement of my opinions upon the burning questions in medical politics. I hold those opinions strongly and would advocate them vigorously in the Council. I have had a large experience of public life and am credited with possessing the courage of my opinions. I may say, however, that I have not sought the position in which my candidature places me. This is entirely due to the judgment and goodwill of my friends and not of my own.

I am fully sensible of the honour of being counted worthy to be associated with the candidature of Dr. Glover, who has merited the gratitude of the profession by his past services, and of Dr. Lovell Drage, whose attitude towards and action upon questions of great importance to the profession warrant

his claim to the confidence of those to whom we jointly appeal.

I am, ladies and gentlemen,
Very faithfully yours,
(Signed) SAM WOODCOCK.

Old Trafford, Manchester, July, 1896.

To the Members of the Medical Profession in England and Wales.

GENTLEMEN,—In response to an invitation from influential members of the profession I have consented to become a candidate for one of the seats upon the General Medical Council as direct representative. My candidature has been adopted by the Lancashire and Cheshire Branch of the British Medical Association in conjunction with that of Dr. J. G. Glover of London and Dr. Samuel Woodcock of Manchester, the same three candidates having also been adopted by the Council of the Medical Defence Union. Should I be so fortunate as to secure a seat upon the General Medical Council it will be my duty to further the following matters of importance to the medical profession:—

1. *The amendment of the Medical Acts.*—It should be made penal to practise medicine, surgery, or midwifery for gain without qualifications.

2. *The maintenance of the value of registration.*—Registration should be compulsory for the practice of medicine, surgery, and midwifery.

3. *Increased direct representation as a matter of urgent necessity.*—It is manifestly unjust that the profession in England and Wales should be permitted to elect three representatives only upon a Council of thirty members. Such increased representation is, moreover, required, so that appropriate solutions may be found for such questions as that of medical aid associations and the prevention of unqualified practice, matters which affect seriously the general practitioner, but which are of comparative indifference to the various qualifying bodies—viz., the medical corporations and the universities, already so largely over-represented upon the Council.

4. *The election of a dental representative.*—I would suggest that one of the Crown appointments at the next vacancy be secured for a representative of the dental profession, and would urge upon the Council that proper application be made to this effect in the proper quarter.

5. *Registration of midwifery nurses.*—I can offer no support to any attempt at legislation which would interfere with the necessary control of obstetric practice by medical men, nor can I countenance any scheme which does not provide for the efficient supervision of midwifery nurses. A short training in the absence of such efficient control will not be a sufficient guarantee for the correct practice of an obstetric nurse.

Associated as my family has been with general practice in Hatfield for a period extending back to the beginning of the century, I need hardly state that my own interests are bound up absolutely with those of general practitioners elsewhere, and I will pledge myself, if elected as one of the direct representatives, to devote my best energies to the maintenance and improvement of such interests.

Hatfield, July 6th, 1896. LOVELL DRAGE.

THE VACANCIES ON THE GENERAL MEDICAL COUNCIL.

A meeting was convened at 1, Highbury-place, London, N., on Friday, July 3rd, in support of certain candidates to fill the forthcoming vacancies on the General Medical Council. Among those present were Sir James Crichton-Browne, Mr. Victor Horsley, Dr. J. G. Glover, Mr. A. Pearce Gould, Dr. S. Squire Sprigge, Dr. Lovell Drage, Mr. David Keele, Dr. E. A. White, Dr. James Williamson, Dr. R. Ostlere, Mr. Charles King, Dr. A. G. Bateman, Mr. King, Dr. H. J. Stokes, Dr. R. W. Burnet, Dr. E. S. Tait, Mr. H. B. Tait, Mr. W. H. Day, Dr. L. U. Young, Dr. A. H. Robinson, Mr. C. Montague Simpson, Dr. C. F. Bailey, Mr. W. Dingley, Mr. E. H. Hare, Mr. O. A. Wickham, Dr. B. G. Morison, Dr. J. J. Lough, Mr. W. J. S. Ladell, Dr. A. D. Ducat, and Dr. Alex. Reid and Mr. H. Fraser Stokes, honorary secretaries.

Mr. KING, who occupied the chair, explained that the meeting had assembled to consider the vacancies which were about to arise in the direct representation of the profession on the General Medical Council. He need not remind them how valuable a principle was that of direct representation.

Dr. GLOVER said that when ten years ago he thought of presenting himself as a candidate for a seat on the General Medical Council his first step was to call together his friends and neighbours to get as it were a good start. He did the same before his second election, and he saw no reason to depart from that plan on the occasion of the third election. They had met in support of certain candidates and also to support the principle of direct representation—a principle which was still fighting for recognition. Ten years ago it was recognised by the Legislature and incorporated in the Act of 1886, when the first direct representatives were elected. The question which the profession now had to settle was, Had the elected representatives done their duty, had they held up the principle of direct representation, or had they let it down? That was the question they had to consider. He wished them particularly to remember that the General Medical Council had a double function—(1) of education and (2) of registration. Many people seemed to forget this double nature of the Council and he thought that, in spite of the fact that the direct representatives for England and Wales only numbered three, a study of the minutes would show that these representatives had not been without their use in both the functions he had mentioned. To judge from the remarks of some speakers one would think that the direct representatives of the profession were mere agitators. He thought, however, a study of the work they had done would refute that view. At any rate, he did not think it would be endorsed by the leaders and most conservative members of the Council. From their first appointment the direct representatives took a great interest in the education of students in its practical aspect. At that time practical subjects were very much neglected. Even students who successfully passed their examinations were imperfectly acquainted with the practical subjects, and one of the first things which the direct representatives did was to direct attention to the practical element in medical education. He had promoted a deputation to the Local Government Board which resulted in increased facilities for the study of infectious diseases, and to the direct representatives was greatly due the fact that the medical curriculum had been lengthened. Among the subjects which they had had to consider was the fairness and efficiency of the examining boards. Many of the rejections, he thought, were due not to the student, but to bad teaching or examining. With regard to the constitution of the General Medical Council he was quite of the opinion that there should be a larger proportion of direct representatives. They had endeavoured by every possible means to get the Council to see the desirableness of adding to the number of direct representatives, but he was bound to admit that the principle of direct representation had never been favourably entertained by the Council. Another question they had to consider was that of unqualified practice in its gross forms of quackery and in its covered forms. The penal clauses of the Medical Act were insufficient and not to be relied upon. These clauses ought to be made so clear that if a man assumed titles which he did not possess, or in any way acted fraudulently towards the public by conveying the impression that he was a medical man, his punishment would be unmistakable. The Council should be stimulated to extend and make clear its present powers. On behalf of his colleagues and himself he thought he might undertake to say that it would be their constant endeavour to make the Council use its powers a little more vigorously. It was hard, he said, that a man should be compelled to undergo severe examinations and yet no sharp line be drawn between him and the pretender. Such an amendment of the Act would be just to the poor and to the general public, whom it is the duty of the Government to protect. The legal profession was far more jealous of its rights, and its powers of dealing with offenders were very much more efficient than those possessed by the profession which dealt with the more important matter of health. He was of opinion that qualifying bodies should exercise their disciplinary powers more effectually, and that all the qualifying bodies should have such powers. With respect to the midwives question, he was pleased to know that there was a unanimous agreement in the profession that the existing state of things could not be allowed to go on. Midwives ignorant of the first principles of puerperal hygiene caused the death of thousands. Whatever qualification be given to these women, it must be non-medical, and the women themselves must act under medical supervision in all unusual cases. Another subject on which the General Medical Council had had to

deliberate was that of medical aid societies and the employment of medical men by limited companies. In this matter the representatives had done the best they could, and had not shirked their duty, whether considered as a Council of Registration or of Education. Dr. Glover concluded his speech by dwelling upon the advantages in continuity of office and the necessity for choosing the direct representatives from the ranks of the general practitioners.

On the motion of Dr. STOKES, seconded by Sir JAMES CRICHTON-BROWNE and supported by Mr. A. PEARCE GOULD, the following resolution was carried *nemine contradicente*: "That this meeting heartily approves of the way in which Dr. Glover has discharged the duties of direct representative; hears with satisfaction of his determination to seek re-election, and expresses the hope that he may be again returned at the head of the poll."

Dr. LOVELL DRAGE said he had not come prepared with an election speech and that his views had been most ably expressed by Dr. Glover. The question that the general practitioner had to decide at the present election was the great question of reform. This question, he was glad to say, was not one which had agitated the mind of the profession only. Quite recently a barrister had called his attention to the fact that the public were in very great danger of the operations of quacks and persons not on the Medical Register, and instanced the case of a dentist who killed a patient under chloroform. Another thing which the profession was suffering from was the jealousy of the State. When the last Medical Act was passed the Government had not the courage to say, We will protect the medical man. He was glad to hear the remark which had been made by Sir James Crichton-Browne that the strength of the profession was the great safeguard of the public. It was a great misfortune that that fact had not been recognised by the Legislature. With regard to the suppression of quackery he knew it was surrounded with difficulties, but he was not aware of any difficulties which could not be overcome. One question in which he took a great interest was that relating to medical titles and education. The question could only be dealt with by radical reform, and the basis of that reform, he took it, must be that admission to the Register admitted to every kind of practice, just in the same way that admission to the Bar qualified the barrister to practice where and however he pleased. Students who entered hospitals suffered under many disadvantages. It should be possible for a student to enter any hospital and work straight on to obtain any degree he chose. Referring to the penal clauses of the Medical Act, he was quite convinced that more work ought to be done, not only by the licensing bodies themselves, but also by local societies.

Replying to a question Dr. DRAGE said his views on the midwives question were substantially the same as those of Dr. Glover. Both Dr. Glover and himself were agreed that the last Bill introduced into Parliament was not satisfactory and did not place the profession in the light due to it. He believed there was a Bill promoted by the British Medical Association, but he had not seen it and he had not yet seen any Bill which would satisfy him.

Mr. VICTOR HORSLEY then proposed the following resolution: "That this meeting has heard with satisfaction that Dr. Woodcock, J.P. for Manchester, and Dr. Lovell Drage of Hatfield are candidates for the two vacancies arising by the resignation of Sir Walter Foster and Mr. Wheelhouse, and pledges itself to support these gentlemen conjointly with Dr. Glover."

Mr. W. DINGLEY seconded the resolution, which was unanimously carried.

Votes of thanks to the chairman and Dr. White, who lent the room for the meeting, closed the proceedings.

THE DANGERS OF CYCLING.

CYCLING which was yesterday the fad of the few is to-day the pastime of the many; it has brought wealth to the wayside town and village, has given a new industry to the country, and by taking the place of more expensive forms of locomotion has facilitated in various ways the carrying on of trade. But unfortunately this progress which has taken place well within a quarter of a century has been attended with the sacrifice of many lives and with numberless casualties, many of which have been very severe. With the advent of the motor cycle it is more than probable that the number of casualties from cycling will increase, in which case legislation will be called for. We should, however, be sorry to see so popular a pastime as cycling trammelled by legislative rules and hope that the good sense of cyclists will prevent anything of the kind if the dangers are pointed out and the remedies which they can themselves apply are suggested.

It is a noteworthy fact that in nearly every case where an accident has occurred the cyclist has been riding for pleasure, and it is still further noteworthy that by far the larger percentage of accidents are attributable to recklessness or want of knowledge and skill in manipulating the machine. A prolific source of accident and one which seems to present an ever-recurring source of temptation to many cyclists to see how speedily they can sacrifice their lives is hilly ground. The moment the brow of a hill is reached the reckless cyclist seems impelled to take his feet from the pedals and to allow the machine to descend with all the rapidity which weight, gravity, and the gathering force give it. To the novice this is especially attractive, inasmuch as it gives him an opportunity of resting his tired muscles. Providing the rider has a straight and clear road it is just possible that no accident may occur, but the story of casualties from this cause is invariably the same; the cyclist loses control over his machine and collides with some object, be it cart, hedge, or wall, with the resulting effect of death or severe injury. A good brake affixed to the back wheel of the machine would have the effect of considerably reducing the number of accidents from this cause, but, unfortunately, there is an idea that the addition of a brake adds an inconvenient weight to the machine. It is true that there is still room for improvement in the matter of brakes, but there is a pneumatic contrivance on the market which is both safe and effective, it being attached to the back wheel and being very light the excuse of inconvenient weight cannot be urged. Another frequent cause of accident is the practice of "scorching." For the benefit of the uninitiated we may define the term as an impulse over-ruling the cyclist's reason compelling him to overtake any and every moving object which may be in front of him. It is somewhat analogous to the schoolboy's love of overtaking those walking before him, and it shows similar lack of mental control. Oblivious of everything but the one object of overtaking that which is immediately in front of him, he rushes madly on and, if fortunate enough to escape injury to himself, is only too likely to cause serious harm, if not death, to the pedestrian who may be unfortunate enough to be in his way. The ambition for record breaking and the desire for making a "century run"—i.e., the covering of a hundred miles in one day—are greatly responsible for the practice of "scorching" and they should be strongly denounced by any medical man who has an opportunity of advising in the matter. These two causes of accident, which we are sorry to say cannot be attributed to the male sex alone, occur for the most part outside large towns, where reckless riding can be indulged in with some amount of impunity as far as the law is concerned. When we come to consider the accidents which occur in the busy towns we have to chronicle carelessness, incompetence, and a lamentable want of knowledge as to the rules of the road. Quite a number of these accidents occur to women, many of whom are physically unfit to cope with the crowded traffic. Wedged in between a number of vehicles, and lacking the necessary nerve to extricate themselves, they waver, and either run into a horse and cause it to plunge or themselves fall beneath the wheels of a vehicle. The accidents which occur to the male sex may sometimes be attributable to the same cause, but more frequently they are the result of a reckless disregard of danger and a desire to pass by the vehicle in front. This causes the horse to shy and perhaps to upset the cyclist. Riding too close behind a vehicle is another cause of accident. The cart, or whatever it may be, suddenly pulls up, the cyclist rushes into it and is thrown, and another vehicle passes over him. Want of knowledge or wilful disregard of the rules of the road, too, has been the cause of several deaths and severe injuries. It is not, however, always the fault of the cyclist that accidents happen in our crowded thoroughfares. The intolerance of cabmen, the reckless driving of butchers' traps and milk carts and light vans carrying provisions are too well known to need comment. Cabmen, too, often delight in causing as much inconvenience and annoyance to cyclists as they possibly can do,

and we have been witness of a cabman deliberately crossing to the wrong side of the road in front of a cyclist for no other purpose than the wanton one of causing the latter to dismount. Drivers of light private vehicles again frequently show the utmost contempt for the cyclist whom they seem to think has no right whatever to the use of the road. This feeling on the part of drivers often shows itself against pedestrians and it cannot be too frequently pointed out that the road is not the exclusive property of the drivers of horses and carts. Faulty machines are a source of accident which manufacurers should be made responsible for. Several accidents have occured lately from this cause, and we greatly fear that the increasing demand on the part of the public for machines will not tend to lessen this cause unless manufacturers are made liable. Two serious sources of danger are the use of the crowded roads by learners and the hiring out of machines to novices. A busy road would seem to be the last place a sensible person would select for learning to ride a bicycle, yet three deaths have taken place from this cause within the past few weeks. The hiring out of bicycles to children and roughs bent on what they call a "spree" should be checked by law. It should be quite possible to license those who let out cycles for hire, and such persons should be made responsible if an accident occurs through the letting out of a machine to an incompetent person.

The cases which we have mentioned are not hypothetical, but have been drawn from a list of recent accidents, and we have instanced them with the object of showing that the accidents connected with cycling are for the most part preventable. Our contemporaries who are devoted to the interests of "wheeling" have, we know, already done good service in this respect, but we venture to assert that if they would impress even more strenuously upon the cycling public the importance of strictly attending to some such simple rules as the following, much good would ensue. These rules are not intended to be exhaustive nor are they for the expert cyclist, although even the experienced rider should not ignore them.

Thoroughly examine your machine before starting on a journey.

Do not ride without a brake, which should be attached to the back wheel if possible.

Beware of tram lines especially when they are wet.

Avoid turning sharply on a wet or "greasy" road.

Pass horses at a slow speed.

Never take the feet off the pedals when riding down hills.

Do not ride with the hands off the handles especially in crowded thoroughfares.

Ride carefully when passing side streets or the carriage entrance to houses.

Before attempting to pass another vehicle ring the bell when at least twenty yards distant. This will give the rider time to see what the intentions of the driver of the vehicle in front are, and will enable the cyclist to take precautionary measures in time should such be necessary.

When riding in parties vehicles should be passed in single file.

Warning by the bell should be given in as gentle a manner as possible. The sudden ringing of a loud gong is apt to cause a pedestrian to lose his presence of mind and run into the very danger it was the intention of the cyclist he should avoid.

When riding behind vehicles in a crowded thoroughfare be prepared to dismount at a moment's notice if necessary.

Keep on the proper side of the road.[1]

Ladies should not attempt to ride in the public thoroughfares until they have absolute control over and confidence in their machine. They should keep as near as possible to the kerb and ride slowly.

Those who wear a skirt should see that it is not too long. It should be lined in front with some glazed material in order to prevent friction, and all loose drapery which is likely to be caught by the wind and perhaps caught in the machine should be avoided.

In addition we would suggest that persons who let out cycles for hire should be under the control of the police. It should be a punishable offence to let out machines not in proper order and no child or other incompetent person should be allowed to hire a machine.

[1] This rule must be applied with intelligence. There are cases when a deviation from the strict rule will prevent an accident.

It should be possible for the police to prevent novices learning to ride in the public thoroughfares.

Railway companies should issue cheap tickets for cyclists and their machines in order that riders might be enabled to commence their journey as far as possible away from crowded thoroughfares.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE half-yearly meeting of Fellows was held in the theatre of the College on July 2nd, the President, Mr. CHRISTOPHER HEATH, being in the chair.

The PRESIDENT reported that the resolutions carried at the last meeting of Fellows had been reported to the Council on Jan. 9th, 1896, and that in reference to the first of those resolutions—viz.: "That it is desirable to give the Members of the College direct representation upon the Council"—the Council had adopted the following resolutions on March 12th and May 14th respectively, viz.:—

1. "As the Members of this Council represent the body corporate of this Royal College, and consequently its Members as well as its Fellows, it is the opinion of this Council that no further representation of the Members is desirable."

2. "That a poll of the Fellows be taken respecting the motion passed at the general meeting of Fellows on January 2nd in favour of giving to the Members of the College direct representation upon the Council, and that a committee be appointed to prepare, for the approval of the Council, an elucidatory statement of the subject in question, together with the interrogatories which shall be submitted to the Fellows."

and that the committee had held several meetings and had prepared a report, which would be presented at the next meeting of the Council.

The PRESIDENT further reported that the following resolution had been adopted by the Council in reply to the deputation of Fellows received by the committee of the Council in reference to the subject of the desirability, or otherwise, of applying for a new Charter, viz.:—

"That the deputation of Fellows be informed that since their propositions were submitted to the Council a meeting of Fellows on January 2nd, 1896, resolved 'that it is desirable to give to Members of the College direct representation upon the Council,' and it having been determined by the Council to take a poll of the Fellows upon this question, it appears to the Council inexpedient at the present time to arrive at any decision in reference to other points involving alterations in the charters and by-laws of the College."

No Fellow present having wished to address the meeting on the report presented Mr. TIMOTHY HOLMES moved:—

"That the Council be requested to instruct its representative on the General Medical Council to forward in every way which seems feasible the objects of the Civil Rights Defence Committee in the case of Mr. R. B. Anderson."

He mentioned that the Civil Rights Defence Committee had addressed the General Medical Council on the subect, but that they had been told that it was not a subject with which the General Medical Council could concern itself. This reply had been founded on a mistaken idea as to the objects of the Defence Committee. Mr. Anderson had suffered great indignities and was unable to obtain any redress. Mr. Holmes said that the resolution was to ask the Council of the College to bring the matter again before the General Medical Council by means of the representative of the College.

Mr. JACKSON (Plymouth) seconded the resolution, and said that he thought the matter should be brought before the House of Commons, and that it should be definitely decided that a judge was not above the law.

Mr. F. J. GANT pointed out that Mr. Anderson had had a verdict in his favour with an award of £500 damages, which he had been unable to obtain

Mr. R. B. ANDERSON thanked the Council for what it had already done for him and declared that the cause was certain to be ultimately triumphant. This opinion was supported by judges of eminence; Mr. Baron Pollock had refused to stay the action, and it had further been declared by the Court of Appeal that actions would lie against a judge for wilful misconduct in the practice of his judicial functions.

When the vote was put to the meeting twenty-three voted in its favour and none against it. Thirty-seven Fellows were present, including ten members of the Council.

Obituary.

CHARLES HENRY RALFE, M.A., M.D. CANTAB., F.R.C.P. LOND.

DR. CHARLES HENRY RALFE, whose lamented death we briefly chronicled last week, was born on October 8th, 1842. He was a posthumous child, his father, Captain Ralfe, of the Indian army, having been killed in action at Fort Sauger in the April preceding his birth. His early years were spent at Weston-super-Mare, and when, on the termination of his school days, he resolved to adopt the profession of medicine he became a pupil at the Bath United Hospital. At the termination of his pupilage he removed to King's College, London, where he concluded the first part of his medical career by taking his M.R.C.S. Eng. in 1863.

His first appointment was as house surgeon to the Female Lock Hospital, and here it was that he met Mr. (now Sir John) Williams, and established with him an affectionate and close intimacy which continued through life. Here it may be parenthetically remarked that the friendships which Dr. Ralfe formed were generally lasting—a fact which was due to the openness, simplicity, and sincerity of his character. On leaving the Female Lock Hospital Dr. Ralfe determined to extend his education, and accordingly, in the autumn of 1863, he entered at Gonville and Caius College, Cambridge, where he graduated with honours in natural science.

On quitting the University he settled in practice at Doncaster in partnership with Mr. Kiernan at a time when Dr. Vaughan, the present Dean of Llandaff, was the vicar of that town. We mention this fact because the fast friendship which he there established with Dr. and Mrs. Vaughan continued throughout his life and influenced his early career not a little. It was after the appointment of Dr. Vaughan as Master of the Temple in 1869 that Dr. Ralfe determined to come to London, and the persuasions of that eminent divine, who recognised Ralfe's sterling qualities, influenced this important decision to a very considerable degree. On coming to town he settled in Queen Anne-street, where he continued to live till within a very few weeks of his death. It was not long before he succeeded in finding congenial work. Following the bent of his mind he devoted himself to the study of chemistry in the laboratory of Mr. C. Heaton at Charing-cross Hospital when he filled the post of Registrar, and in 1873 he published a valuable little handbook on Physiological Chemistry, and it was also about this time that he was appointed Demonstrator of Physiological Chemistry in the Medical School of St. George's Hospital. He also became physician to the Seamen's Hospital at Greenwich, and there he found opportunities for studying scurvy, a subject upon which, from his exceptional chemical knowledge, he was well qualified to form sound opinions. He established the important fact that the urine of scorbutic patients is deficient, not only in potash, but also in the alkaline phosphates, and published these views in a brochure entitled "An Enquiry into the General Pathology of Scurvy." On his appointment as assistant physician to the London Hospital in 1880 he resigned his post at Greenwich and devoted himself to teaching and study in that great field of clinical research. At the London Hospital, as everywhere, Dr. Ralfe was most popular with his colleagues and all with whom he was thrown into contact.

Dr. Ralfe was thirty-eight years old when he was appointed assistant physician to the London Hospital, and had, therefore, reached an age when in most men the enthusiasm of youth begins to get somewhat blunted. But he threw himself into his work with characteristic ardour and continued the severe labour of seeing out-patients and teaching until within a few months of his death. He was never full physician to the hospital, and it must be taken as a great testimony to his worth that on his resignation in May last the authorities conferred upon him the distinction of consulting physician, an honour which has been seldom if ever accorded to one who was technically a junior at the time of resignation. Not only was Dr. Ralfe scrupulously exact in the performance of his duties, but he took a keen interest in all that concerned the welfare of the students, and for some years he gave a voluntary course of lectures on pathological chemistry which were deservedly appreciated. On the death of Dr. Tidy Dr. Ralfe was appointed lecturer on Public Health. It will thus be gathered that Dr. Ralfe's duties at the London Hospital were by no means light and that although his life had been comparatively short he succeeded in performing no small amount of useful work. Dr. Ralfe was a regular attendant in former years at the meetings of the Pathological Society, where his knowledge of pathological chemistry, both in the general discussions of the society and as a member of the Morbid Growths Committee, tended in no small degree to forward the scientific study of pathology. His first contributions were made in 1873, and continued at intervals until within a few years of his death, when the increasing cares of practice, combined with failing health, tended to diminish his scientific output.

CHARLES HENRY RALFE, M.D. CANTAB., F.R.C.P. LOND.

It was in 1879 that Dr. Ralfe, in conjunction with his friend, Professor Greenfield of Edinburgh, Mr. M'Carthy, and the late Professor Marcus Beck, drew up an elaborate report on "Pyæmia, Septicæmia, and Purulent Infection," which at once consolidated and advanced our knowledge of these most important subjects. In this elaborate report the chemical examination of morbid fluids was the part in which Dr. Ralfe was mainly concerned. A few years later he issued a book on Morbid Urines, and in 1883, at the instigation of Messrs. Cassell and Co., he wrote for them his well-known handbook on Clinical Chemistry. The final outcome of his studies took the form of an octavo volume of some 600 pages on Diseases of the Kidney. This work is most judicial in tone and is marked by scientific acumen tempered by common sense, and bears evidence of large and varied experience in the classes of disease of which it treats. Dr. Ralfe's great merits as a scientific physician were abundantly recognised by the profession. He became a Fellow of the Royal College of Physicians of London in 1878, and

subsequently acted as one of the examiners for the College as well as for the Durham University and his own University of Cambridge.

This short sketch gives a good idea of Dr. Ralfe's quiet determination. His early career was somewhat chequered, and it was not until he was twenty-eight years of age that he came to London, comparatively unknown, to try his fortune in the higher ranks of the profession. He had not the good luck, as many distinguished students have, to place his foot upon the lowest round of the ladder on the termination of his pupilage and thus climb slowly and steadily upwards to the top; but he boldly came to London with no immediate prospects of advancement and, as we have seen, filled a succession of appointments until he ultimately found himself on the staff of an important hospital and medical school. It was during this time of varied work that he became a member of the staff of THE LANCET, and for many years was an active contributor to its pages, and in this capacity as elsewhere he endeared himself to his colleagues by his kindliness and gentleness of character. His contributions were characterised by a scholarly style, and his scientific writings were ever tempered by a broad literary knowledge which gave them a pleasant piquancy. Dr. Ralfe endeared himself to all with whom he was associated, and in this fact is to be found the secret of his success. Among his staunch friends must be mentioned the late Dr. Murchison, whose pupil Dr. Ralfe had been at King's College, and who in later years did much to further his professional advancement. The late Sir Andrew Clark, also, when Dr. Ralfe became his colleague, soon found that he was a sincere and public-spirited man, and one who in all things was implicitly to be trusted. The death of Dr. Ralfe will not only be mourned by his scientific friends, but still more by his personal friends, whether within the profession or otherwise. He was, indeed, the best of friends and ever ready to comfort those in trouble and to help with advice or more material aid all who were in need or difficulty. He was exceptionally well read, and to the last maintained his knowledge of the classical authors and the old medical writers of this country and of other countries. His wide reading, his fund of anecdote, and his cheerful, kindly disposition made him a delightful social companion, and to go out of town with him, to ramble through the country, or perhaps to angle in some of the streams associated with the name of Izaac Walton, was a pleasure which dwelt in the memory for many a day. Dr. Ralfe was a type of the man which it is the glory of our universities to turn out—manly in the best sense, fond of fresh air and exercise, and delighting to dwell on bygone contests on the Cam, but at the same time earnest in his work and devoting his best energies to the advancement of his profession in every way and the comfort and welfare of his patients.

A well-bred gentleman who to sound professional knowledge and unerring tact adds an innate ethical sense of the highest kind will never lack patients, and Dr. Ralfe's *clientèle* gradually increased by the double process of holding fast the old friends and acquiring new ones. Although Dr. Ralfe's practice was in every sense adequate it was probably never what could be called very big, and the reason is not far to seek. For some years past he had shown a tendency to glycosuria, that increasing scourge of modern life, and this constitutional failing necessarily compelled him to spare himself the labours and dangers of social duties and to reserve his best energies for professional work. It is true that the race is not always to the strong, but it is none the less true that in these times success in medicine is seldom attained by those who are not physically robust, and who are not able, not only to work hard in the hospital and the laboratory, but also to bear the burden of public and social work. When, as in the present instance, we see a man cut off comparatively young, just when his honours are ripening, and succumbing to maladies which, if not caused, are certainly intensified by modern city life, we are apt to repine and to wish that circumstances had been different and that so genial a nature might have been permitted to attain a green old age in some pleasant restful spot. But this was not to be. The glycosuria, which at first was occasional only, assumed a permanent form a few years since. In August of last year the constitutional trouble from which he suffered showed itself in a severe outbreak of carbuncles and boils upon the back, from which, however, under the care of his friend and colleague, Mr. H. P. Dean, he made a good recovery and was able to get away to the sea. It was not long, however, before pulmonary troubles set in in the form of pleurisy and pneumonia, which assumed a chronic form and ultimately developed into pronounced pulmonary tuberculosis. He had the advantage from the first of the assiduous care of his colleague, Dr. Stephen Mackenzie, who, in the spring of the year, in conjunction with Dr. Douglas Powell, urged him to definitely give up work and retire to the country. This advice he acted upon, and sought rest and fresh air in the village of Billericay, Essex, in order to be near his brother-in-law, the Rev. Mr. Davis, the rector of the neighbouring parish of North Benfleet. His removal to the country was unfortunately ineffectual in staying the course of his disease, and he gradually sank and finally succumbed on June 26th, retaining his consciousness to the end and meeting his fate with the perfect calmness and resignation to be expected in one so deeply imbued as he was with the spirit of true Christianity.

The funeral took place in the churchyard of his brother-in-law's church at North Benfleet on July 2nd amidst every testimony of sorrow and respect. In addition to his widow and his brother-in-law and near relatives there were present Dr. Stephen Mackenzie, representing the medical school of the London Hospital, and also his colleague, Mr. Dean, and his life-long friend, Sir John Williams. The floral tributes were numerous and included wreaths from many personal friends and patients and also from the students and nursing staff, the council and the college board of the London Hospital. Dr. Ralfe was twice married, first to Miss Mary Nicholson, daughter of the Rev. J. Nicholson, rector of Great Paxton, Hunts, who died in 1873; and, secondly, to Miss Elizabeth Davis, sister of the rector of North Benfleet and cousin of Sir John Williams, who survives him. Dr. Ralfe left no issue.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The death of the following eminent foreign medical man is announced:—Dr. Wilhelm Schlesinger, *privat-docent* in Gynæcology in Vienna and late editor of the *Wiener Medicinische Blätter*, in his fifty-seventh year.

THE OBLIGATIONS OF THE GENERAL MEDICAL COUNCIL, MEDICAL SCHOOLS, AND CORPORATIONS IN RELATION TO THE RIGHTS OF MEDICAL MEN.

ON June 30th a deputation of the Civil Rights Defence Committee was introduced by the Earl of Stamford to the Master, Wardens, and a full Court of Assistants of the Worshipful Society of Apothecaries. The deputation consisted of the Earl of Stamford, President of the Civil Rights Defence Committee; Major-General Graham, Vice-President of the British West Indian Alliance, representing the Alliance; Mr. Walter Rivington and Dr. Ward Cousins, representing the Council of the Royal College of Surgeons of England; Mr. H. T. Butlin (together with Dr. Ward Cousins), representing the British Medical Association; Mr. Timothy Holmes and Mr. H. Percy Dunn, representing the Association of Fellows of the Royal College of Surgeons of England; Mr. Walter Monnington, of the Inner Temple; and Mr. R. B. Anderson, F.R.C.S.Eng., and L.S.A.

The Earl of STAMFORD, in introducing the deputation, said, "I have to thank your Worshipful Society for the honour done in receiving us, and I will not trespass long upon your time; but I desire to express briefly the strong sense that all of us entertain of the very serious nature of the wrongs sustained by Mr. Anderson and also of the very admirable way in which he has borne and is bearing them. I particularly desire to say that, having regard to your influential position in the City, and to Mr. Anderson's relations to you, the present occasion is of the greatest importance to the cause which we have at heart and much will depend in the future on your reply to our invitation.

General GRAHAM then said: Gentlemen, the object of this deputation is to invite you to join in the work of the Civil Rights Defence Committee in defence of your rights under your ancient charters as a licensing body.

[Here followed details of the facts and position with which our readers are acquainted.]

General Graham continued:

Mr. Anderson is a distinguished Licentiate and a Silver Medalist of your Society, and the professional rights violated in his case are rights which you conferred upon him by virtue of your ancient charters. If what is done to him shall stand the Licence he received from you is waste paper; if that Licence is valueless so is every other Licence that you issue, and so is your charter to issue Licences. It is in this relation that your coöperation would be most powerful, and the Civil Rights Defence Committee earnestly invites you to recognise and declare that your chartered rights are infringed and to appeal to your brethren of all the City Guilds to stand by you in defence of your Charter. When, as in this case, such help is sought on adequate grounds the Guilds are, by all your ancient traditions and obligations, bound to coöperate with and support you in defence of your rights and Charters. The methods proposed to be followed in this defence are strictly legal and constitutional. They include (1) an appeal to the Privy Council from illegal judgments and orders still on record and in force against Mr. Anderson in Trinidad; (2) an appeal to the House of Lords from the judgment of the Court of Appeal; and (3) an appeal, if necessary, to Parliament for amendment of the law and indemnification to Mr. Anderson. In these measures we ask your powerful coöperation and support, and we should very heartily welcome the appointment of two or more representatives on our committee who might also act as your sub-committee in the City.

Mr. R. B. ANDERSON then explained the origin of his difficulties and the hostile policy of Sir John Gorrie. He described the circumstances of his attendance on Mrs. Marshall, his retirement from the case, the subsequent claim before Sir John Gorrie, and the judgment, giving £10 damages and costs, against him for so retiring (since much increased), and depriving him of his charges for three months' attendance, all contrary to the medical evidence on both sides and to Section XXXI. of the Medical Act.

Dr. WARD COUSINS said: Gentlemen, I have the honour to be a Licentiate of this ancient and Worshipful Society, and I feel this gives me some claim to address you on this subject and to express what I am sure will be the general sense of your Licentiates, that under such circumstances as those of this case, when our rights as Licentiates—rights which we derive from you—are violated it is natural that we should look to you, as Mr. Anderson very naturally does, for sympathy and protection and support. As President of the Council of the British Medical Association I am in a position to speak as to the feeling of the Association with regard to the case. The Council is taking an active part in defence of our professional rights violated in this case, many of the branches are taking up the matter warmly, and the feeling of the Association as a whole is that Mr. Anderson has been most grievously wronged, and that it is necessary in defence of our rights, as well as for the sake of justice, to insist that his wrongs shall be redressed and the rights infringed be vindicated. In this work we invite you to take an active part, since your powerful influence will aid us invaluably in obtaining that widespread interest and support which are essential to success.

Mr. UPTON, the clerk and legal adviser of the Society, then asked several questions, and

Mr. ANDERSON, in reply, said: We are not without a considerable body of legal opinion in our favour. Mr. Hugh H. H. Bellot, B.C.L., has published two admirable articles in the *Westminster Review* (March and April, 1896), in which he quotes some twenty-five authorities that the judgment of Lord Coleridge and the Court of Appeal is wrong. We were received by the Hardwicke Debating Society, representing the four Inns of Court, and a motion was carried by about 25 votes to 2 that the judgment is mischievous and dangerous, an encroachment on the rights and liberties of the subject, and ought to be reversed. Mr. Candy, Q.C., who certainly must rank as an eminent lawyer, made an eloquent speech, in which he declared he could imagine no subject of greater national importance than the question of the immunity of the judges as involved in this case, and that he considered the case an admirable one to be taken by way of appeal to the House of Lords. He based this opinion to a great extent on the judgment of Justices Cave and Charles, who refused to stay the actions as frivolous and vexatious, and decided that the facts alleged and afterwards found by the jury to be proven were a good cause of action against any judge; and I believe it is admitted, as Mr. Candy stated, that Justices Cave and Charles are two of the most learned and profound lawyers that at present adorn the Bench. No application for pecuniary help is included in the objects of the deputation; the help asked for at present is moral support and coöperation in arousing interest, and especially in inviting the help of the City companies. When a proper occasion arises and great public bodies are subscribing I am sure your Worshipful Society will not be reluctant to subscribe voluntarily whatever may seem to you commensurate with the position and dignity of the Hall and the requirements of the occasion. It is hoped that large subscriptions will not be required from any single source, but that the amount will be made up by greater numbers so as to prove the extent of interest. The view that your Charter is infringed by the violation of my rights under my Licence is not founded on the supposition that as a Licentiate I am of the body corporate, but on the fact that the value of all your Licences is thereby affected, which value is a part of your rights as a body corporate.

Mr. RIVINGTON said: Worshipful Master and Gentlemen,—One of the by-laws of the Royal College of Surgeons of England is that the Council undertakes to protect Fellows and Members who may be disturbed in the exercise and enjoyment of their rights as Fellows and Members. On Mr. Anderson's first application and the invitation of the committee to join it the case was submitted for legal opinion, and the opinion was given that the case does not come within the by-law, but this was overruled by the good sense and right feeling of the Council, and Mr. Macnamara and Mr. Tweedy were appointed to represent the Council on the Civil Rights Defence Committee. Afterwards, as the attendance was onerous, these gentlemen resigned and I, and, later, Dr. Ward Cousins, were appointed on the committee. The College is much impressed with the gravity and importance of the case and the necessity for strenuous defence of our rights involved in it, and also with the sense of the great cruelty and injustice of the wrongs inflicted on Mr. Anderson and the absolute necessity of obtaining redress of them. Individual members of the Council strongly sympathise with Mr. Anderson, and in proof of this I need only say that a memorial of the committee to our Member for the Strand Division was signed by the President and many members of the Council. In this respect we are aware that Mr. Anderson has no such direct claim on you as the by-law I have mentioned gives him on the College, but I venture as a Licentiate to submit that he has a very strong moral claim to your help in making good the rights you yourselves conferred upon him by your Licence, rights which have been violated. I am sure that the body of Licentiates will watch your action in the matter with interest, and that for you to stand with him in defence of those rights will be well advised and will be popular. The College has not yet been asked to help financially, but events are moving. The British Medical Association is taking active steps with the object of contributing, and it will soon be necessary to bring the matter before our Council. In the meantime we ask you to express your sympathy by a resolution and to give your moral support by appointing representatives to coöperate with us, and especially to help us with your powerful influence in the City.

Mr. TIMOTHY HOLMES said: There is one aspect of the subject that has not been brought to your notice and I should like to state it to you. This is no question of an "opinion" that is open to be formed one way or the other. We come to you with the fact fully established beyond doubt, proved, and admitted that Mr. Anderson is a terribly wronged and injured man. His wrongs are established, not only by the verdict of a jury, but also by the report of a commission sent out by Government, consisting of most eminent lawyers—Sir W. Markby and Sir F. Pollock—who, if such motives could be supposed to animate men in such a position, could at least not be suspected of having any motive or wish to favour Mr. Anderson, so that, in asking you to accept the case as an absolutely established one I have the very best authority, and I am sure it is not necessary for me to dwell on the very strong claim that the injuries done to Mr. Anderson as a Licentiate give him on your sympathy and help.

The MASTER said: I am sure that in expressing the very great sympathy I feel with Mr. Anderson and the wish that he may succeed in obtaining redress I express the feelings of

the whole Court. Your invitation will receive our careful and most favourable consideration.

The deputation then withdrew.

THE NEW CONVALESCENT HOME OF THE MIDDLESEX HOSPITAL.

WE give an illustration of this home at Clacton-on-Sea in connexion with which a grand floral *fête* was held last week at the Middlesex Hospital under the patronage of the Duke and Duchess of York. The home stands in about five acres of ground, facing due south, and is about ten minutes' walk from the beach. It provides accommodation for twenty-six men, seventeen women, and twelve children. In addition to this provision is made for nurses who, from sickness or other causes, require rest and change of air.

Convalescent Home of the Middlesex Hospital at Clacton-on-Sea.

The central part of the main front building contains the sitting-rooms and bedrooms for the matron and the nurses, together with the sick nurses' rooms and the servants' bedrooms. On either side of the central block are two wings, that to the east containing the accommodation for the male patients, the west wing being devoted to women and children. Two spacious day-rooms, with bay windows opening on to wide verandahs, are provided on each side, with the addition on the male side of a glass-roofed smoking-room. At the back of the corridor giving access to these rooms are a large lavatory and cloakroom, with suitable arrangements for boot-cleaning and similar domestic purposes. The dormitories occupy the two floors over the day-rooms. Those on the first floor have windows opening on to a wide balcony, where patients unable to get up can be wheeled in their beds. At the back or north side of the front block is a one-storey range of buildings, containing the dining-hall, a large room suitable not only for meals but for concerts or entertainments, the kitchen offices, a dining-room for nurses, the servants' hall, and the stores. A small, separate block, connected by a covered way, open at the sides, with the main buildings, provides the requisite rooms for the isolation of cases of infectious disease that may chance to occur among the patients.

Northward again of the buildings just described are the laundry, boiler house, engine room, and water tower. Plant for producing electric current for lighting the whole of the buildings and for driving the laundry machinery is here provided. The water-supply for every purpose is derived from a well in the grounds, whence it is pumped to the top of the water tower, where it undergoes the process of softening; the softened water is then pumped to tanks in the roof of the main building, and from this point it is distributed by gravitation to all parts of the Home. For drinking purposes Berkefeld filters are provided on every floor. Besides the buildings described there is a lodge at the entrance which is occupied by the engineer, and at the north end of the site is a cottage for the gardener, together with a greenhouse, potting shed, and other offices.

We are glad to learn that the substantial sum of £4150 has been the outcome of the floral *fête* and congratulate the organisers.

THE SOUDAN CAMPAIGN.

THE appearance of cholera at Wady Halfa is a very unfortunate circumstance that cannot fail to give rise to much anxiety and embarrassment on the part of those charged with the sanitary and medical responsibilities of the Anglo-Egyptian expedition. We pointed out in THE LANCET of the 27th ult. that it was quite possible that the disease prevailing in Egypt might spread to the troops engaged in the Soudan campaign, but added that in the event of their being attacked the troops were in the best place for them to be under such circumstances—viz., in the desert, encamped on clean and healthy sites and provided with what was believed to be a good water-supply. The hygienic arrangements generally are also carefully attended to, and all practicable precautionary measures, we may be sure, have been taken to prevent the spread of the disease. The cases have not so far been very numerous and no very grave apprehensions seem to be entertained in this respect, still the manifestations of cholera at this season necessarily give rise to some anxiety.

The death of an English member of the expedition from cholera in the person of Mr. Vallom, the superintendent of the workshops at Wady Halfa, is much regretted. It seems that 27 cases and 9 deaths from cholera have been reported among the Egyptian troops. According to the latest returns — issued on the 7th inst. — there were in the Egyptian army at Assouan 5 cases; at Korosko, 6 cases; and at Wady Halfa, 10 new cases and 5 deaths. Among the British troops at Wady Halfa there had been since Saturday last 4 fresh cases and 4 deaths.

The weather is, of course, very hot. The Nile is rising. It is reported from Kosheh that some isolation huts have been erected about 1000 yards outside the camp for the accommodation of any suspicious cases of sickness.

According to a telegram of the 8th inst. from the General Officer Commanding in Egypt, received at the War Office and published in the daily journals of the 9th inst., we learn that "before the end of June the state of health of the British troops at Halfa continued good; the continued heat then began to tell, and there have been five deaths from enteritis there. First Battalion North Staffordshire Regiment were moved to Gemai, where their health is good; but there have been four deaths at Halfa and one at Gemai from cholera."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6372 births and 3691 deaths were registered during the week ending July 4th. The annual rate of mortality in these towns, which had been 17·3 and 16·9 per 1000 in the two preceding weeks, rose again last week to 17·8. In London the rate was 18·3 per 1000, while it averaged 17·4 in the thirty-two provincial towns. The lowest rates in these towns were

9·2 in Derby, 9·7 in Croydon, 12·1 in Brighton, and 12·2 in Swansea; the highest rates were 21·2 in Sunderland, 21·3 in Liverpool, 23·8 in Salford, and 27·5 in Gateshead. The 3691 deaths included 720 which were referred to the principal zymotic diseases, against 590 and 627 in the two preceding weeks; of these, 305 resulted from diarrhœa, 175 from measles, 111 from whooping-cough, 64 from diphtheria, 36 from scarlet fever, 28 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases was recorded last week in Derby; in the other towns they caused the lowest death-rates in Swansea, Plymouth, Bradford, and Blackburn, and the highest rates in Salford, Leicester, Hull, and Gateshead. The greatest mortality from measles occurred in Salford, Leeds, Hull, Sunderland, and Gateshead; from whooping-cough in Birkenhead, Huddersfield, Halifax, and Wolverhampton; and from diarrhœa in West Ham, Liverpool, Sheffield, Salford, Birkenhead, and Leicester. The mortality from scarlet fever and from whooping-cough showed no marked excess in any of the large towns. The 64 deaths from diphtheria included 43 in London, 4 in Birmingham, and 3 in Liverpool. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns. There were 39 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 4th inst., against 27, 41, and 33 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 9, 18, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2994, against 2781, 2811, and 2882 on the three preceding Saturdays; 359 new cases were admitted during the week, against 352, 309, and 322 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the five preceding weeks from 230 to 153, rose again to 162 last week, but were 34 below the corrected average. The causes of 41, or 1·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Salford, Bradford, Newcastle-upon-Tyne, and in fifteen other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, and Manchester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·9 and 17·1 per 1000 in the two preceding weeks, rose again to 18·8 during the week ending July 4th, and exceeded by 1·0 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Aberdeen and 15·2 in Greenock to 19·0 in Dundee and 21·8 in Glasgow. The 548 deaths in these towns included 38 which were referred to measles, 25 to diarrhœa, 22 to whooping-cough, 9 to "fever," 9 to diphtheria, and 6 to scarlet fever. In all, 109 deaths resulted from these principal zymotic diseases, against 80 and 81 in the two preceding weeks. These 109 deaths were equal to an annual rate of 3·7 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 33 and 28 in the two preceding weeks, rose again to 38 last week, of which 33 occurred in Glasgow and 3 in Dundee. The 25 deaths from diarrhœa were within two of the number recorded in the preceding week, and included 11 in Glasgow, and 6 in Leith. The fatal cases of whooping-cough, which had declined from 38 to 15 in the seven preceding weeks, rose again to 22 last week, of which 16 occurred in Glasgow and 5 in Paisley. The 9 deaths referred to different forms of "fever" showed a further increase upon recent weekly numbers, and included 5 in Glasgow and 2 in Dundee. The fatal cases of diphtheria, which had been 5 and 4 in the two preceding weeks, rose again to 9 last week, of which 6 occurred in Glasgow and 2 in Edinburgh. The 6 deaths from scarlet fever exceeded the number recorded in any recent week, and included 4 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 87 and 75 in the two preceding weeks, rose again to 84 last week, and exceeded by five the number in the corresponding week of last year. The causes of 33, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·5 and 25·5 per 1000 in the two preceding weeks, further rose to 25·7 during the week ending July 4th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·3 per 1000, the rate during the same period being 17·8 in London and 16·7 in Edinburgh. The 172 deaths registered in Dublin during the week under notice were within one of the number in the preceding week, and included 31 which were referred to the principal zymotic diseases, against 18 and 14 in the two preceding weeks; of these, 17 resulted from diarrhœa, 6 from scarlet fever, 5 from whooping-cough, 3 from "fever," and not one either from small-pox, measles, or diphtheria. These 31 deaths were equal to an annual rate of 4·6 per 1000, the zymotic death-rate during the same period being 4·0 in London and 1·5 in Edinburgh. The fatal cases of diarrhœa, which had increased from 1 to 10 in the three preceding weeks, further rose to 17 last week. The deaths referred to scarlet fever, which had been 4 and 1 in the two preceding weeks, rose again to 6 last week. The mortality from whooping-cough and from "fever" also exceeded that recorded in the preceding week. The 172 deaths in Dublin last week included 57 of infants under one year of age, and 27 of persons aged upwards of sixty years; the deaths of infants showed a marked further increase upon recent weekly numbers, while those of elderly persons showed a decline. Seven inquest cases and 3 deaths from violence were registered; and 52, or nearly one-third, of the deaths occurred in public institutions. The causes of 10, or nearly 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING JUNE, 1896.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during June in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 10·3 per 1000 of the population, estimated at 4,421,995 persons in the middle of this year. In the three preceding months the rates had been 8·4, 7·5, and 9·2 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in St. George Hanover-square, Westminster, St. James Westminster, Hampstead, St. Martin-in-Fields, Wandsworth, and Woolwich; while they showed the largest excess in Clerkenwell, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Camberwell. The prevalence of small-pox in London during June considerably exceeded that recorded in any recent month; the 41 cases notified included 16 in Islington, 5 in Battersea, 4 in Limehouse, 4 in Lambeth, and 3 in Camberwell sanitary areas. The Metropolitan Asylum Hospitals contained 30 small-pox patients at the end of June, against 33, 10, and 15 at the end of the three preceding months; the weekly admissions averaged 10, against 4 in each of the two preceding months. The prevalence of scarlet fever in London showed a further increase upon that recorded in the two preceding months; this disease was proportionally most prevalent in Paddington, Holborn, Bethnal Green, Whitechapel, St. George-in-the-East, Battersea, and Lee sanitary areas. The Metropolitan Asylum Hospitals contained 2795 scarlet fever patients at the end of June, against 2688, 2464, and 2614 at the end of the three preceding months; the weekly admissions averaged 310, against 234, 208, and 273 in the three preceding months. The prevalence of diphtheria in London during June showed a slight further increase; among the various sanitary areas this disease showed the highest proportional prevalence in St. Luke, Bethnal Green, Mile End Old Town, Poplar, St. Saviour Southwark, Newington, Camberwell, Greenwich, and Plumstead. There were 748 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of June, against 704, 713, and 703 at the end the three preceding months; the weekly admissions averaged 111, against 89 and 95 in the

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—JUNE, 1896.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1896.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.												
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON	4,421,956	41	1824	1022	—	139	5	12	451	—	3504	10·3	1	412	67	173	251	—	24	2	171	1101	3·2	5450	16·1	142
West Districts.																										
Paddington	124,838	1	78	22	—	—	—	—	9	—	110	11·5	1	20	3	9	8	—	1	—	9	51	5·3	167	17·4	163
Kensington	170,660	1	76	30	—	2	—	—	23	—	132	10·1	—	21	—	4	8	—	2	—	4	39	3·0	198	14·4	144
Hammersmith	104,551	—	47	6	—	3	—	—	7	—	63	7·9	—	2	—	2	3	—	—	1	4	14	1·7	112	14·0	201
Fulham	115,039	—	44	14	—	2	—	—	7	—	67	7·6	—	13	2	2	6	—	—	—	8	31	3·5	142	16·1	171
Chelsea	96,857	—	28	26	—	4	1	1	9	—	69	9·3	—	14	3	6	6	—	2	1	4	35	4·7	128	17·3	149
St. George Hanover-square	83,041	1	24	7	—	1	—	—	10	—	43	7·0	—	1	1	2	—	—	—	—	—	4	0·7	72	11·7	73
Westminster	53,477	—	12	4	—	1	—	—	1	—	18	4·4	—	3	—	—	3	—	—	—	5	9	2·2	61	14·9	168
St. James Westminster	22,956	—	2	5	—	1	—	—	—	—	8	4·5	—	2	—	1	—	—	—	—	1	4	2·3	33	18·7	118
North Districts.																										
Marylebone	141,114	—	63	22	—	3	—	—	21	—	109	10·1	—	7	2	2	4	—	—	—	8	23	2·1	188	17·4	154
Hampstead	75,812	—	15	14	—	1	—	—	3	—	33	5·7	—	4	—	2	2	—	—	—	1	9	1·5	53	9·1	88
St. Pancras	241,066	1	66	35	—	7	1	1	20	—	131	7·1	—	10	4	3	10	—	1	—	13	41	2·2	282	15·2	154
Islington	337,339	16	148	106	—	8	—	1	32	—	311	12·0	—	19	4	17	23	—	1	—	6	70	2·7	397	15·3	136
Stoke Newington	33,615	—	14	5	—	—	—	—	—	—	19	7·4	—	1	1	2	—	—	—	—	1	5	1·9	28	10·9	74
Hackney	213,774	—	100	47	—	3	—	—	24	—	174	10·6	—	21	1	7	13	—	4	—	8	54	3·3	230	14·0	160
Central Districts.																										
St. Giles	38,158	—	13	4	—	—	—	—	8	—	25	8·5	—	5	—	1	2	—	1	—	—	9	3·1	55	18·8	125
St. Martin-in-the-Fields	13,003	—	2	1	—	1	—	—	2	—	6	6·0	—	—	1	—	—	—	—	—	—	1	1·0	13	13·0	235
Strand	23,820	—	12	5	—	1	—	—	—	—	18	9·9	—	7	—	1	—	—	—	—	1	9	4·9	37	20·3	136
Holborn	30 932	—	15	3	—	—	—	—	4	—	22	9·3	—	1	—	—	1	—	—	—	1	3	1·3	48	20·2	174
Clerkenwell	66,195	1	34	18	—	5	—	—	8	—	66	13·0	—	7	1	3	6	—	—	—	4	21	4·1	87	17·1	167
St. Luke	41,478	—	13	13	—	3	—	—	9	—	38	11·9	—	—	—	2	3	—	—	—	1	6	1·9	61	19·2	136
City of London	31,409	1	15	5	—	1	—	—	1	—	23	9·5	—	—	1	1	—	—	—	—	1	3	1·2	43	17·8	143
East Districts.																										
Shoreditch	122 265	—	31	12	—	5	1	—	21	—	70	7·5	—	17	2	2	5	—	1	—	9	36	3·8	171	18·2	189
Bethnal Green	129,151	—	109	43	—	6	1	4	30	—	193	19·5	—	20	5	4	10	—	—	—	4	43	4·3	179	18·1	114
Whitechapel	78,886	—	56	14	—	2	—	—	11	—	82	13·6	—	11	—	1	5	—	—	—	7	24	4·0	134	22·1	141
St. George-in-the-East	47,689	—	32	14	—	2	—	—	11	—	59	16·2	—	4	1	3	—	—	—	—	2	13	3·6	75	20·5	120
Limehouse	68,247	4	25	19	—	1	—	1	12	—	62	13·9	—	5	2	6	5	—	—	—	1	19	4·2	87	19·4	146
Mile End Old Town	111,226	—	52	43	—	2	—	—	16	—	113	13·2	—	16	1	7	11	—	—	—	5	39	4·5	161	18·9	154
Poplar	109,379	—	72	59	—	10	—	—	20	—	161	12·4	—	21	3	11	7	—	2	—	3	47	3·6	208	16·0	113
South Districts.																										
St. Saviour Southwark	25,276	—	12	8	—	1	—	—	2	—	23	11·9	—	—	2	1	—	—	1	—	—	4	2·1	35	18·1	107
St. George Southwark	60,301	—	21	13	—	4	—	—	4	—	42	9·1	—	11	1	2	6	—	—	—	5	25	5·4	110	23·8	145
Newington	121,191	—	39	45	—	7	—	—	8	—	99	10·6	—	6	1	5	—	—	2	—	9	23	2·5	168	17·9	137
St. Olave Southwark	11,673	—	5	4	—	—	—	—	1	—	10	11·2	—	4	—	—	1	—	—	—	1	6	6·7	23	25·7	94
Bermondsey	85,508	—	37	22	—	5	—	—	7	—	71	10·8	—	8	2	5	7	—	1	—	1	24	3·7	133	20·3	176
Rotherhithe	40,432	—	9	7	—	1	—	—	10	—	27	8·7	—	1	—	1	9	—	—	—	—	11	3·5	56	17·7	211
Lambeth	236,036	4	99	55	—	10	1	—	18	—	185	8·1	—	13	1	6	15	—	1	—	11	47	2·1	314	13·8	145
Battersea	165,864	5	83	24	—	5	—	—	17	—	134	10·5	—	43	3	4	19	—	1	—	11	81	6·4	235	18·5	206
Wandsworth	188,918	—	57	19	—	6	—	1	18	—	101	7·0	—	20	2	2	13	—	1	—	5	43	3·0	184	12·7	104
Camberwell	253,976	3	109	115	—	17	—	1	17	—	262	13·4	—	14	3	26	9	—	2	—	10	64	3·3	263	13·5	96
Greenwich	176,293	2	82	70	—	1	—	—	16	—	171	12·6	—	12	8	9	17	—	—	—	4	50	3·7	225	16·6	122
Lewisham (excluding Penge)	83,795	—	22	17	—	3	—	2	7	—	51	7·9	—	5	1	7	1	—	—	—	2	16	2·5	77	12·0	83
Woolwich	41,334	—	10	7	—	1	—	—	3	—	21	6·8	—	10	1	3	3	—	—	—	—	17	5·4	66	20·8	138
Lee	38,714	—	24	3	—	1	—	—	1	—	29	9·8	—	2	—	1	2	—	—	—	—	5	1·7	46	15·6	212
Plumstead	59,610	—	28	19	—	2	—	—	2	—	51	11·2	—	11	2	5	5	—	—	—	1	24	5·2	68	14·9	110
Port of London	—	1	—	—	—	—	—	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 24 cases of membranous croup.

† Including deaths from membranous croup.

two preceding months. The prevalence of enteric fever in London showed a further decline from that recorded in recent months; this disease was proportionally most prevalent in Clerkenwell, St. Luke, Poplar, St. George Southwark, and Camberwell sanitary areas. Erysipelas was proportionally most prevalent in St. Giles, St. Luke, Bethnal Green, St. George-in-the-East, and Limehouse sanitary areas. The 12 cases of puerperal fever notified during June included 4 in Bethnal Green and 2 in Lewisham sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, June 27th, the deaths of 5450 persons belonging to London were registered, equal to an annual rate of 16·1 per 1000, against 19·4, 18·7, and 17·2 in the three preceding months. The lowest death-rates during June in the various sanitary areas were 9·1 in Hampstead, 10·9 in Stoke Newington, 11·7 in St. George Hanover-square, 12·0 in Lewisham, 12·7 in Wandsworth, and 13·0 in St. Martin-in-the-Fields; the highest rates were 20·3 in Strand, and in Bermondsey, 20·5 in St. George-in-the-East, 20·8 in Woolwich, 22·1 in Whitechapel, 23·8 in St. George Southwark, and 25·7 in St. Olave Southwark. During the four weeks of June 1101 deaths were referred to the principal zymotic diseases in London; of these, 412 resulted from measles, 251 from whooping-cough, 173 from diphtheria, 171 from diarrhœa, 67 from scarlet fever, 24 from enteric fever, 2 from ill-defined forms of continued fever, and 1 from small-pox. These 1101 deaths were equal to an annual rate of 3·2 per 1000; among the various sanitary areas the lowest death-rates from these diseases were recorded in Hammersmith, St. George Hanover-square, Hampstead, St. Martin-in-the-Fields, City of London, and Lee, and the highest rates in Paddington, St. George Southwark, St. Olave Southwark, Battersea, Woolwich, and Plumstead. Only one fatal case of small-pox was registered in London during June; this belonged to Paddington sanitary area. The 412 deaths referred to measles exceeded by 136 the corrected average number in the corresponding periods of the ten preceding years; among the various sanitary areas this disease showed the highest proportional fatality in Paddington, Strand, Bethnal Green, St. George Southwark, St. Olave Southwark, Battersea, Woolwich, and Plumstead. The 67 fatal cases of scarlet fever were within 2 of the corrected average number; this disease showed the highest proportional fatality in Bethnal Green and Greenwich sanitary areas. The 173 deaths from diphtheria were 52 above the corrected average number; this disease was proportionally most fatal in Paddington, Chelsea, Limehouse, Poplar, Bermondsey, Camberwell, Lewisham, and Plumstead sanitary areas. The 251 fatal cases of whooping-cough exceeded by 80 the corrected average number; among the various sanitary areas this disease showed the highest proportional fatality in Clerkenwell, Mile End Old Town, St. George Southwark, Battersea, and Greenwich. The 24 deaths referred to enteric fever were 12 below the corrected average number; the mortality from this disease showed no marked excess in any of the sanitary areas. The 171 fatal cases of diarrhœa corresponded with the corrected average number. In conclusion, it may be stated that the mortality in London during June from these principal zymotic diseases was nearly 30 per cent. above the average.

Infant mortality in London during June, measured by the proportion of deaths under one year of age to births registered, was equal to 142 per 1000, and slightly exceeded the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in St. George Hanover-square, Hampstead, Stoke Newington, St. Olave Southwark, Camberwell, and Lewisham; and the highest rates in Hammersmith, St. Martin-in-the-Fields, Shoreditch, Rotherhithe, Battersea, and Lee.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL CAMPBELL has taken up Medical Charge at Pisley Camp. Surgeon-Colonel W. Nash leaves Egypt on promotion to Surgeon-Major-General, vice Surgeon-Major-General J. Warren, and will be posted to Dover, vice Surgeon-Major-General W. Taylor. Surgeon-Colonel T. F. O'Dwyer, M.D., takes up the appointment of Principal Medical Officer at Aldershot, vice Surgeon-Major-General H. F. Paterson, retired.

Brigade-Surgeon-Lieutenant-Colonel Henry Joseph O'Brien, M.B., is placed on retired pay. Brigade-Surgeon-Lieutenant-Colonel William McWatters to be Surgeon-Colonel, vice A. F. Churchill, M.B., promoted. Surgeon-Lieutenant-Colonel Henry J. W. Barrow to be Brigade-Surgeon-Lieutenant-Colonel, vice W. McWatters. Surgeon-Major-General H. F. Paterson is placed on the Retired List.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel G. C. Hall, Superintendent, Central Prison, Allahabad, to be Inspector-General of Prisons, North-Western Provinces and Oudh. Surgeon-Captain E. Hudson, to officiate as Superintendent of the Central Prison at Benares. Surgeon-Captain Basu to the Medical Charge of the 3rd Bombay Light Infantry. Brigade-Surgeon-Lieutenant-Colonel A. F. Dobson has made over, and Surgeon-Major R. Ross has assumed, charge of the office of the Residency Surgeon at Bangalore. Brigade-Surgeon-Lieutenant-Colonel A. B. Seaman, Bengal Medical Establishment, is appointed Principal Medical Officer, Malakand Brigade. The services of Surgeon-Major C. Mallins, late Acting Inspector and Deputy Sanitary Commissioner, Madras, are placed at the disposal of the Military Department. Surgeon-Lieutenant E. C. MacLeod (Bengal), whose services have been placed temporarily at the disposal of the Chief Commissioner in the Home Department, is appointed to officiate as Civil Surgeon of the Kamrup District.

NAVAL MEDICAL SERVICE.

The following appointments are notified: — Surgeons: A. E. Merewether and William R. Center, lent to the *Victory* for service in depôt during the manœuvres.

YEOMANRY CAVALRY.

Worcestershire (the Queen's Own Worcestershire Hussars): Surgeon-Captain A. O. Holbeche resigns his commission.

VOLUNTEER CORPS.

Artillery: 1st Essex (Eastern Division, Royal Artillery): George Alexander Troup, M.B., to be Surgeon-Lieutenant. 1st Cumberland: Surgeon-Lieutenant J. H. Dickson, M.B., to be Surgeon-Captain. 2nd West Riding of Yorkshire (Western Division Royal Artillery): Edward George Peck, gent., to be Surgeon-Lieutenant. 1st Devonshire (Western Division Royal Artillery): Surgeon-Lieutenant P. M. Deas, M.D., resigns his commission. *Rifle:* 1st Volunteer Battalion the King's (Liverpool Regiment): The undermentioned Surgeon-Lieutenants to be Surgeon-Captains:—A. Fisher, and W. S. Crawford. 3rd Volunteer Battalion the Manchester Regiment: Hugh Irwin, M.B., to be Surgeon-Lieutenant. 4th Volunteer Battalion the Essex Regiment: Surgeon-Lieutenant H. T. Challis to be Surgeon-Captain. 1st Volunteer Battalion the Highland Light Infantry: Surgeon-Lieutenant J. Swanson, M.B., to be Surgeon-Captain.

THE MADAGASCAR EXPEDITION.

At a recent meeting of the Académie de Médecine Inspector-General Léon Colin defended the sanitary authorities of the Madagascar force against the criticisms of M. Laborde, who is of opinion that the excessive sickness and mortality from malarial disease could have been obviated to a great extent if efficient prophylactic measures had been enforced, including the preventive administration of the chlorhydro-sulphate of quinine. It was out of the question, said Inspector-General Colin, to adopt the innumerable drugs and formulas that were tendered on all sides, and, moreover, there was really nothing to show that the salt so warmly recommended by his distinguished colleague was superior in its antiperiodic effects to those already provided in the military medicine chests, especially the hydrochlerate, which was not only rich in quinine, but also very soluble. With regard to the alleged neglect of prophylaxis in general, it should be remembered that an army of 20,000 men is not so easily dealt with as a single battalion or a ship's crew, where every individual is under constant observation and

† Including deaths from membranous croup.

* Including 24 cases of membranous croup.

control. Owing to the enormous length and arduous character of the line of communication between the coast and Antananarivo the entire force had to be broken up into small sections and detachments, and every soldier thus became more or less the controller of his own personal hygiene. When during a campaign concentration of the troops is practicable the regular distribution—and, what is of more consequence, the ingestion—of the medicament is easily assured, but even in such cases the results are by no means invariably satisfactory. The prophylactic value of quinine depends greatly on the season of the year in which it is administered, and the great reputation the drug has acquired may in some measure be due to its having been employed during periods when the malarial poison was comparatively quiescent. Among the expeditions in which the preventive use of quinine is believed to have yielded good results the first to be quoted is invariably that undertaken by the English against the Ashantis in 1874. "I have made a careful study of this expedition," continued the speaker, "and may even rank myself among the number of its historians. In my lectures, as well as in my writings, I have always held it up as a type of warfare conducted to a successful issue under the most unhealthy conditions. The undertaking was unquestionably prosperous, but, on the other hand, what precautions were there not taken in advance to assure this result! On the Gold Coast there is but one month out of the twelve which may be said to be relatively healthy—namely, the month of March; but so perfect was the preliminary organisation that it was possible to bring the active operations to a conclusion in the course of that brief space of time. The various measures had been so accurately foreseen and adjusted that as soon as the English soldiers were disembarked from the transports they were able without an hour's delay to commence their 100 kilometre march along a practicable road, constructed by native labour, and supplemented at the principal halting places with huts for sleeping in as well as a plentiful supply of water. Under these circumstances is it any wonder that the English column enjoyed immunity from sickness? The two expeditions of Ashanti and Madagascar cannot be compared with each other. By the very force of circumstances the latter was inevitably a far more serious affair than that undertaken by the English. In our laborious campaign several members of the medical staff lost their lives and the health of a great number was deeply compromised. All of them, without exception, performed their duties with the utmost zeal and in a manner calculated to do them honour equally as men of science and patriots." Inspector-General Colin's speech was very well received, his concluding remarks in particular being warmly applauded.

THE RATING OF NETLEY HOSPITAL.

The South Stoneham guardians at their last meeting decided to appeal to the Treasury to allow the assessment of the Netley Hospital property to be raised. It appeared that at present £3560 is the rateable value of the property, but it was stated by one of the officials that a sum of £400,000 was laid out on the works, which would make the assessment (at 3 per cent.) £15,000. These figures will be laid before the authorities, who have recently agreed to pay higher on all the Aldershot property, and a gross rateable value of £15,000, net £12,000, will be asked for.

THE MAGAZINE RIFLE.

In reply to questions put to him in the House of Commons this week Mr. Powell-Williams, Financial Secretary to the War Office, said that no change had been made in the proportion of nitro-glycerine in cordite. Neither the powder nor the cartridge of the magazine rifle had been altered, but the groove of the barrel had been changed with the object of increasing its endurance and diminishing the metallic fouling, although as regards the latter no trouble had been experienced.

The Hants Company of the Militia Medical Staff Corps has arrived at Netley for the annual training. The company is commanded by Surgeon-Lieutenant W. M. O'Connor, M.B. The strength consists of seventy-five non-commissioned officers and men. The training will last till July 29th.

The Glasgow and Leeds Companies, Volunteer Medical Staff Corps, will encamp at Netley from Aug. 1st to Aug. 8th.

Correspondence.

"Audi alteram partem."

SOUTH AFRICA AS A HEALTH RESORT.

To the Editors of THE LANCET.

SIRS,—Many letters have recently appeared both in THE LANCET and other papers on the subject of South Africa as a health resort. Some of these try to show that no case of phthisis derives any benefit in Africa which could not be obtained equally well at home, and others almost wish to prove that not to send a phthisical patient to Africa is at the least a grave mistake. It is not my intention to uphold either of these extreme views, but merely to give a straightforward and unbiased account of things in South Africa as they really are and thus to try to help both the invalid and his medical man in deciding whether that country will or will not suit his particular case. My own knowledge has been gained by three and a half years' residence and work in Kimberley. I can therefore speak authoritatively about that town and the district of Griqualand West, of which it is the capital, though I have naturally acquired much information, both by personal observation and by hearsay, about the other parts of Cape Colony, the Orange Free State, the Transvaal, and to some extent of Natal.

The advantages of a stay in South Africa have been very fully dwelt upon, but I think the disadvantages which a patient encounters have not been sufficiently explained. The advantages are almost entirely climatic and may be very briefly summed up as fresh air (more or less dry and more or less warm, according to season and locality) and sunshine, and by considering these alone without thinking of the corresponding disadvantages many phthisical patients are sent to South Africa who would do better in Europe. These disadvantages are connected with food, accommodation, occupation, and amusement. To begin with the food. From an invalid's point of view the food of South Africa is almost without exception bad; except in very few hotels and boarding houses it is coarse in quality, badly cooked, and most unappetisingly served. There is no variety in the diet and no delicacies are to be had, in many cases fresh milk and eggs and the commonest vegetables being unobtainable. If a man can eat the same food as the rest, well and good; if not he goes without. Very frequently it is not a question of getting extras or luxuries by paying for them—they simply cannot be procured at any price. This state of things cannot altogether be prevented. Meat, for instance, must often be cooked within a few hours of being killed and cannot be tender under such conditions. Then, again, vegetables require a plentiful supply of water and need care and attention, and in many places water is scarce, and throughout Africa the energy to cultivate a garden is scarcer still. The native servants, too, who do the bulk of the work, are hard to get and harder to keep; they are idle and usually incompetent, besides having a most inconvenient habit of getting "sick" at the most inopportune times. With material like this to work upon one cannot wonder if hotel-keepers fail to keep things up to European standards.

Next as to accommodation. In most hotels the bedrooms are small, dark, and badly ventilated; bathrooms, drains, and sanitary arrangements are either absent or astonishingly primitive; there is often no fireplace in any room in the house, much as a fire is needed in winter after sundown; and there is no provision at all for private sitting-rooms or quietness. In private houses the accommodation is very much better, but even there leaves much to be desired. African houses being built as if cold and damp did not exist.

Then as to occupation and amusement. On farms the only occupations open are farming and teaching. As so little land is under cultivation, and sheep and cattle are generally looked after by natives, there is really very little farm work and consequently very little opening for helpers. Teaching, too, can only afford openings to a small number, otherwise it is good, the hours of work being short and a great part of the day being spent in the open air. For amusement on farms there is little beyond riding and shooting, with perhaps occasional tennis. In the villages there are, in addition, some chances of employment as clerk in a store (usually of the supply-anything-from-a-shaving-brush-to-a-coffin order),

but the long hours and necessary confinement, though much less rigidly enforced than in England, make this anything but an ideal occupation for an invalid. In the villages, too, there will be a little society of a sort, with, perhaps, some cricket or football. In the towns there are better chances of employment and more amusements, but the occupations of clerk or bank clerk, &c., are not as well suited to the invalid as the same in the country.

The occupation and amusement side of the question is a very important one; however well the climate may suit an invalid, unless he is occupied for part at least of the day, or has a variety of amusement at hand to distract his mind from his own troubles, when the first novelty of his surroundings wears off he becomes unutterably bored with the monotony of his life and loses ground in consequence. Most patients come out alone and feel the inconveniences I have mentioned far more than they would if they had a companion to share them. Many of them are poor and have thus the additional anxiety of knowing that their funds will only last a certain limited time, after which they must either return home or struggle with employment for which they may be physically unfit. Taking all these points into consideration, unless a phthisical patient comes out very early in the disease, or is sufficiently well off to be independent of work, I feel very strongly that the wisest course is to impress upon him the advisability of setting up his own house when he has once obtained employment or decided upon the locality which suits him best. From what I have said it will be readily gathered that comfort is a rare thing in Africa; if you want it you must make it for yourself, but outside your own home money will not buy it. A patient can usually get a house to suit himself, and by taking with him his wife, mother, sister, or at any rate someone who will look after his domestic comfort, give him some society, and prevent him from being dependent upon strangers for the little kindnesses and attentions which mean so much to an invalid, can do much to counteract the inconveniences and drawbacks which I have described. Another matter that is far too frequently lost sight of, or at any rate only casually mentioned, is the length of stay in Africa. "Go to the Cape, stay the winter, and you will be all right," at first sounds very comforting to the patient; but when he gets there, fails to recover at this railway pace, finds he has to stay longer, and has not arranged his home affairs for a longer stay, he is apt to be disappointed and to feel hurt that he was not more definitely told that recovery is at the best only a slow process. As a good rough working rule I would suggest that every patient should be told to stay three years in Africa, and if in that time he has found any way of making a fairly comfortable living he should prolong his stay indefinitely. This can, of course, be modified at any time should the improvement made justify such modification, but many cases do not stay long enough to derive any real benefit and, more, destroy all the progress made by returning too soon. In any case it is far better to be prepared for a long stay and to be pleasantly disappointed than *vice versâ*.

Having made these general remarks I will now touch upon some special features in the climate of Kimberley and some special advantages in the way of occupation and amusement which Kimberley offers to the phthisical patient. The greatest climatic advantage is that, being at a high altitude (4000 ft.) and on a plain, the nights are pleasantly cool and fresh, and one can usually sleep in comfort even in the hot season—a thing which is often impossible in the damp, stuffy heat of the low-lying coast towns, or even in some of the higher towns which are shut in by hills. In winter the nights are often very cold, ice forming frequently, but of course disappearing rapidly when the sun gets up. The air is very dry, no rain usually falling except in the months of November, December, January, and February, and even then no great quantity falls, the total annual rainfall being only about twenty inches. The hottest months are December and January, the coldest June and July. The temperature at 2 P.M. varies from 66° to 90° F. The absolute minimum recorded during the last two years was 22° F., the absolute maximum 100°, the readings being taken with proper instruments in a properly shaded place and by a competent observer, Mr. J. R. Sutton of Kimberley, to whom I am much indebted for all the figures quoted here. Another noteworthy feature is the very large amount of sunshine, as much as 321½ hours having been recently registered in one month. For the whole year 1894 74·4 per cent. of the greatest possible amount of sunshine was registered in Kimberley, and for the year 1895 76 per cent. These figures show plainly that dry air and sunshine with a fairly moderate temperature are the chief characteristics of the Kimberley climate, the dryness of the air and the altitude making the heat infinitely more bearable than the sweltering moistness of the coast. What I have said about food and accommodation applies to some extent to Kimberley, but they are much better than in the smaller towns. There is a plentiful supply of water from the Vaal River some twenty miles off, with a pumping station, filter-beds, and delivery pipes to all houses, and the water is perfectly reliable and good. There are no drains, sanitation being effected by a pail system, but it is efficiently carried out. As may be imagined, with good water and proper sanitary arrangements typhoid fever, diphtheria, &c., though not unknown, are rare, much more so than in Johannesburg, Cape Town, or Port Elizabeth. There is a large and excellent hospital arranged on the usual colonial plan—viz., that in addition to the free wards there are paying wards at varying prices and with all kinds of accommodation, the charge for the best single room with everything included being only just over the hotel rate. The patients in these wards can be attended by any medical man they choose, whether he is on the hospital staff or not. This arrangement is most convenient when a stranger is suddenly taken ill.

As to occupation, the numerous diamond mines employ a large number of men in all kinds of capacities and there are often openings there as well as the usual occupations of an African town. If the patient merely wishes to amuse himself he can probably attain his end better in Kimberley than anywhere else in South Africa, as there are cricket, football, golf, cycling, rifle, bowling, skittle, coursing, and turf clubs. There is a fairly good swimming-bath, but there is no sufficient water for rowing or sailing, and these are almost the only amusements which cannot be had. Horses can be bought at reasonable prices (£15 to £25) or hired from the livery stables, but there are no rides worth taking—at any rate, from an English scenery point of view. There is a first-rate library, both free and by subscription, and an exceedingly comfortable and well-managed club, quiet and not crowded, and no gentleman would find any difficulty in being elected to it.

It has been pretty well recognised that with all these natural and artificial advantages Kimberley could be made the first health resort (for chest cases) in South Africa, and quite recently a movement has been made, initiated by Mr. Rhodes, to establish a sanatorium there which should, as far as possible, obviate the difficulties of food and accommodation mentioned above. The financial part of the scheme has been satisfactorily arranged, Mr. Rhodes himself being a very heavy subscriber; the builders' tender has been accepted, and on my return to Africa I expect to find the building well advanced. The objects and intentions of the committee will be best shown by the following extracts from the secretary's letter to me, dated April 16th, 1896. "When Mr. Rhodes suggested the advisability of establishing a sanatorium at Kimberley he stated that the institution should be devoted to the reception of persons suffering from pulmonary complaints, especially in the earlier stages, and this object will be kept steadily in view. The plans of the building are complete, and it is proposed that there shall be thirty-two bedrooms, large drawing- and dining-rooms, smoking- and billiard-rooms and ladies' sitting-rooms, and the appointments will equal those of the best hotels. The building will consist of two floors, with bathrooms on each floor, and ample lavatory accommodation for ladies and gentlemen. Verandahs and balconies will extend right round the building, and the servants' rooms and kitchens are so arranged as to be well cut off from the residents' notice. All the rooms will be lofty and spacious and well adapted for the health and comfort of those whom the building is destined to accommodate. The majority of the bedrooms are 12 ft. by 14 ft. 6 in., and some are 17 ft. by 20 ft. Most of the bedrooms have a fireplace and are so arranged that a suite of two or three rooms can be engaged by one party. The institution will be conducted by a manager and the charges will be about the same as Kimberley hotel charges. With reference to a resident doctor patients will doubtless prefer to be attended by their own doctors. A patient will be able to engage rooms for his friends, so that he may have them with him. The institution will stand in extensive grounds on a site near Kimberley."

When this institution is completed phthisical patients will be able to take advantage of the glorious air and sunshine of Africa unhampered by them any minor annoyances of every-

day life which one too often sees retarding them in their struggle up the steep hill of recovery. It may seem strange that I have said nothing about the actual effects of the climate upon phthisis, but so much has already been written on this subject, and the improvement in proper cases is so indisputable, that I have preferred to confine myself to those common things of every-day life which have quite as important a bearing upon the invalid's well-being as auscultation and drugs. In conclusion, I may say that I shall be glad to give the fullest information about South Africa that I can to any medical man who cares to ask for it.

I am, Sirs, yours faithfully,

E. OLIVER ASHE, M.D. Lond., F.R.C.S. Eng.,
late Senior House Surgeon, Kimberley Hospital.

London Hospital, E., June 29th, 1896.

"THE CHEMISTRY OF WHISKY."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of June 27th reference is made to the poisonous quality of fusel oil as a contaminant of new spirit. In confirmation of the views which you there express may I draw your attention to a paper on the alcohol group by Dr. Ringer and myself which was published in the *Practitioner* in 1883. In this paper we gave the results of a number of experiments with members of the ethylic alcohol series—ethylic, propylic, butylic, amylic. These we tested upon the excised frog-heart by means of Roy's tonometer, and the tracings so obtained gave very striking demonstration of the point in question. It was then seen that with each rise in the scale—from ethylic to propylic, from propylic to butylic, &c.—the toxic action rose also. Nature is said to make no leaps, but in this instance the mode of progression was, to say the least, very abrupt and step-like. Of course it is a far cry from the isolated frog-heart to the complexity of the entire human organism, but though poisons show marked selective affinities for this or that tissue, this does not mean that the other tissues are unaffected, and in general a compound which is poisonous to one is poisonous to all, though the question of degree may be so prominent that the effect on the one tissue alone strikes the eye. So far as they go, then, the above-mentioned experiments confirm the current views as to the greater poisonous action of the higher terms of this series of alcohols, and they indicate that the toxic differences are probably very considerable. Fusel oil is said to consist mainly of amylic alcohol, but it is well known that in small quantity other terms—propylic, butylic, &c.—are also present in it. For each member of the higher terms of the series primary, secondary, and tertiary variations are possible and corresponding differences in activity prevail but in the main the above statement, so far as the frog-heart is concerned, is true and strikingly demonstrable.

I am, Sirs, yours truly,

Welbeck-street, W., July 6th, 1896. HARRINGTON SAINSBURY.

"THE DEFACEMENT OF PRESCRIPTIONS."

To the Editors of THE LANCET.

SIRS,—No doubt Dr. Gowers justly condemns the defacement of prescriptions by the druggists who dispense them, but there are other medical men who would not grieve over such defacement if they could feel that thereby the life of that prescription is curtailed so far as the chemist is concerned. Dr. Gowers has the consolation of knowing that after excessive wear and tear (backed up, may be, by gummed paper) he may come to see the prescription on a brand new piece of paper (headed by the word "Exemptum"), which at intervals will satisfy the defacement grievance. If it is not desirable that a prescription become obliterated by being dispensed an excessive number of times ought it not to have a limited life, except new birth be given to it by the original prescriber? The requirements might be met by a rule emanating from the Pharmaceutical Society that no prescription should be dispensed, say, more than six months after its original date without a fresh prescription from the medical man. It is unnecessary to show how the want of control over prescriptions (leading as it does also to much incompetent lay practice) affects the medical profession and how deterrent it is to the general practitioner who wishes to adopt the principle that a medical man should prescribe and not dispense (except under certain circumstances) and a druggist dispense and never prescribe.

I am, Sirs, yours faithfully,

Ladbroke-grove, W. J. E. BULLOCK.

To the Editors of THE LANCET.

SIRS,—The thanks of all are due to Dr. Gowers for drawing attention to this subject. For over twenty years my prescription paper—on which I now write to you—has been headed with a printed direction "To the Dispensing Chemist—please stamp on the reverse side," and I am in the habit of suggesting to any druggist who may disregard this request that such omission does not increase my confidence in the accuracy with which the prescribed remedies are dispensed. Possibly some of the fault is on the side of those prescribers who write either on scraps of paper or on sheets studiously bald of their professional—one might almost say business—character.

I am, Sirs, yours faithfully,

July 7th, 1896. L. B.

WATER ANALYSIS.

To the Editors of THE LANCET.

SIRS,—In a review on a new edition of Wanklyn's "Water Analysis" which appeared in THE LANCET of July 4th, I find the following: "We recommend Professor Wanklyn to read the history of the Worthing epidemic of typhoid fever and contrast Dr. Dupré's report founded on chemical examination with Dr. Klein's report founded on bacteriological examination. The latter analysis condemned the water, the former did not; the unfortunate epidemic confirmed Dr. Klein's results."

The more frequently, and carefully, the true history of the Worthing outbreak and the reports thereon are examined by competent persons the better I shall be pleased. As a matter of fact, my analyses were made on water drawn from the well on May 2nd and 6th, quite at the beginning of the epidemic and after a prolonged drought. Dr. Klein's were made on water drawn on July 26th and Aug. 2nd, after the height of the epidemic had just passed, having run its course for over three months and shortly after some heavy rainfalls. Now, it is clearly shown in Dr. Thomson's report that unless a heavy rainfall coincided with a tide-locked condition of the sewers no sewage would be brought into the neighbourhood of the well. Where, then, I ask, is the justification for comparing the samples of water I analysed early in May with the samples examined by Dr. Klein at the end of July and early in August? It should also be noted that in the water of West Worthing, where there was also a severe outbreak of enteric fever, Dr. Klein detected neither bacillus coli nor the enteric fever bacillus in the water which caused the outbreak.

Might I ask your reviewer to do me the favour to study the paper I read before the Society of Public Analysts in April, 1895, a copy of which I enclose? In this paper I define the position I take in regard to the two methods of water examination, and state the conditions under which I consider the one or the other most suitable, together with a short criticism of Dr. Thomson's paper. Thanking you in anticipation for inserting this letter,

I remain, Sirs, yours faithfully,

Caxton-street, Westminster, July 7th, 1896. A. DUPRÉ.

*** Our recommendation was based on the passage in Dr. Theodore Thomson's report (p. 17) that "several chemical analyses of Worthing water *before as well as after the date on which the new supply was utilized* are given in Appendix B, and from these it will be seen that, as not infrequently happens, chemistry failed to detect any definite impurity in the water. But the result of bacterioscopic examinations given in Appendix C furnishes conclusive evidence of contamination of this supply by fæcal matter." Dr. Dupré states, however, in the paper he has kindly sent us that the facts that two bacteriological examinations made by Professor Crookshank and three chemical analyses gave negative results as to pollution were ignored in Dr. Theodore Thomson's report.—ED. L.

"THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS."

To the Editors of THE LANCET.

SIRS,—Every reader of THE LANCET must deeply sympathise with your correspondent, Mr. W. G. Dickinson, in being so rudely confronted by an opponent from a quarter where silence and dark reticence are so generally expected to reign. And this, too, at a time when Mr. Dickinson has been promulgating his views in pamphlet shape among the members of the profession. Surely, surely, Mr. Dickinson might have been allowed to agitate in peace, or I might, at the very least, have withheld my pen until the sultry days of autumn, when everyone had gone from home and the question of the constitution of the Council had been relegated to forgetfulness. Mr. Dickinson seems to doubt the veracity of the object I expressed in writing my letter, and one, therefore, wonders somewhat what manner of a gentleman it is who has assumed the part of my critic. The members of the Council I can appeal to at the meetings of that body, and why should I, therefore, address them through the press? Mr. Dickinson, however, asks me three questions, which I will, nevertheless, reply to. 1. Undoubtedly the Members are an integral part of the College, but whether they should, therefore, have same control over the policy and expenditure of the Council must be determined by a reference to the Charters. 2. Yes. 3. I became a Fellow because I considered that to be the most honourable distinction a man practising pure surgery could possess in this country. I would conclude by advising Mr. Dickinson to go and do likewise. I am, Sirs, yours obediently,

Manchester, July 6th, 1896. JAS. HARDIE.

SUGAR AND GOUT.

To the Editors of THE LANCET.

SIRS,—The remarks of Dr. George Harley on gout in THE LANCET of July 4th are valuable as being in the direction of the case histories and experiences of the gouty. I am surprised to find a physician of experience allowing sugar and sweet champagne to one who is gouty. An intelligent and very gouty man from the country told me not long ago that he found sugar in any form eminently provocative of an attack, and his experience is by no means singular. The still Moselle wines that seem now in so much favour as drink for the gouty owe their merit mainly to their freedom from sugar. The grapes do not grow in a hot climate, and sugar therefore is not greatly developed in the juice. The gouty man who insists on whisky-and-water as being "so good for the gout" is always told on no account to add sugar, for if he does he will be making for himself a very pernicious beverage. That a good sweet champagne may suit better than some of the very dry champagnes of the present day I can understand; for though the dry wines contain but little saccharine, yet their alcoholic potency is often considerable. The typical wine for a gouty man who must have some form of alcohol should be a genuine "Bouquet" wine, of which the self-bred vinous ether exhilarates for a season and then flies off by way of the lungs, leaving nothing to upset the liver or kidneys.—I am, Sirs, yours faithfully,

Welbeck-street, W., July 7th, 1896. JOHN C. THOROWGOOD.

"SHOULD A HEALTHY MOTHER SUCKLE HER CONGENITALLY SYPHILITIC CHILD?"

To the Editors of THE LANCET.

SIRS,—With all Dr. George Ogilvie's views as to the possibility of contamination of a healthy mother or wet nurse by a congenitally syphilitic infant I am thoroughly in accord. It would, I freely grant him, be impossible to insure the freedom of the infant's mouth from specific sores and the nipples of the mother or wet nurse from excoriations throughout the whole period of lactation. All the same I strongly dissent from the line of universal practice which Dr. George Ogilvie advocates—viz., the withholding the breast from syphilitic infants on account of the possible incurrence of syphilis by a healthy mother or wet nurse. In my Hunterian Lectures I gave evidence to prove that the contraction of syphilis from a congenital case was an extremely rare occurrence, and this, too, where the precautions enjoined by Henoch had been totally neglected. With a due regard to these precautions, impossible as it may be to thoroughly ensure them, I believe that the contraction of syphilis by mother or nurse from a tainted infant would be such a remote contingency that the chance of it might fairly be neglected in comparison with the benefits derivable by thousands of infants from being suckled instead of being hand fed. It would seem to me that Dr. Ogilvie is inclined to minimise both the advantages of suckling over hand-feeding and the difficulties attaching to the latter in general. With a large proportion of healthy children hand-feeding is confessedly unsatisfactory, and when dealing with syphilitic infants its disadvantages become markedly increased. In fact, with the impaired vitality these last possess the administration or withholding of the breast must mean for many of them the difference between survival and death. I cannot but think, moreover, that Dr. Ogilvie, along with Fournier, takes a too pessimistic view of the future of syphilitic infants that survive. A very large proportion of them, in my experience and that of many others, turn out in later life as healthy children as others who had not been handicapped with the complaint in infancy.

It is to the writings of Dr. George Ogilvie that we are mainly indebted for the proofs that there are undoubted exceptions to Colles' law, a fact now seemingly as freely admitted as it was formerly universally denied. Mr. Hutchinson's explanation of these extremely rare instances, that they are examples of "second infection" with syphilis, is to me an untenable one. The mothers in recorded cases presented no signs of syphilis and there was an entire absence of proof of their having incurred it prior to their contamination by their own infants. If, moreover, it be assumed that bearing a syphilitic infant is in reality the equivalent of the mother having incurred the complaint herself—an assumption I have never admitted—then such a syphilis must have been contracted some time during her pregnancy. For cases of exception to Colles' law, then, to be cases of "second infection" we must suppose it possible for a mother to be infected with two separate and distinct attacks of syphilis in the brief space of a few months. I think Mr. Hutchinson will find few to support him in the belief in such a possibility. Dr. Ogilvie's analogy between the position of a healthy mother who has borne a tainted infant with respect to syphilis and that of a thoroughly-vaccinated woman with respect to small-pox is a happy one; but, to me, he is less happy in the deductions as to practice he draws from that analogy. To wilfully expose a woman, however efficiently vaccinated, to the contagion of small-pox could serve no conceivable beneficial purpose. On the other hand, to allow a healthy mother to encounter a minimum risk of contracting syphilis by suckling her congenitally syphilitic infant is to possibly save that infant's life. The point raised by Dr. Ogilvie is an extremely important one. In opposition to Dr. Ogilvie I believe in this "conflict of interests" that most will decide in favour of the child.

I am, Sirs, yours faithfully,

Upper Berkeley-street, July 7th, 1896. J. A. COUTTS.

"PREVENTION OF DISASTER AT SEA."

To the Editors of THE LANCET.

SIRS,—At the risk of being accused of reiteration I crave the indulgence of your columns once more, and am impressed with the necessity of this writing after the perusal of the debate in the House of Commons, where the startling yearly list of deaths in coal mines was unearthed and a consensus of opinion brought to bear for remedial legislation. The temperate, practical, and humanitarian remarks then made make one feel pleasure amidst the arid absurdities of obstructive party politics, and it is this that "points the moral" of my thoughts. Why cannot official attention be utilised for preventable loss at sea? "Until she shall give up her dead" the innumerable victims who have been sent to their watery grave by incompetent "look-out" men will not be known. Risks must be taken and dangers there always will be on the waste of waters, but precautions can greatly minimise the chances of disaster. Is it too much to ask that a competent medical adviser should be a necessary official at the Board of Trade, who would see to the eyesight as well as the hygiene of the mercantile marine?

At any rate, it should be imperative that every officer assuming charge of the bridge must possess a recent certificate of competence from a recognised ophthalmic surgeon. Your pages have borne frequent testimony to the necessity of having properly equipped men in charge of engines on shore and at sea, and to many non-medical papers—notably the *Nautical Magazine* as long ago as 1876—a plea has been urged on the same behalf. I do not presume to know the cause of the last terrible disaster, but it would not be amiss to accentuate the lesson and inquire what precautions, if any, were adopted to ascertain the visual condition of the men on whom the safe navigation of the steamer depended.

I am, Sirs, yours faithfully,

R. A. CALDWELL.

Henrietta-street, Cavendish-square, July 6th, 1896.

MEDICAL MEN, PATIENTS, AND THE POLICE.

To the Editors of THE LANCET.

SIRS,—The relation of medical men and their patients has recently been much discussed in the medical and other papers, and I should be glad to have an expression of opinion on the following facts. To-day I was called upon by a detective of our local police, who informed me that a person of some position in his own county was wanted by the police and that a warrant was out for his apprehension; that the said person was supposed to be in this city *ill* and under the care of some medical man. He supposed it possible that this person might be under my care and showed me a photograph of the person wanted. Now, Sirs, supposing the person wanted was at the time a patient of mine, and I had recognised him by the photograph, what position was I in? Was it my duty to respect the confidence of the patient or was it my legal duty to at once give information to the police? As a matter of fact the person wanted has never been a patient of mine (but he might have been), and the charge with regard to which he is wanted is not a capital one.

I am, Sirs, yours very truly,

ARTHUR G. BLOMFIELD,

July 7th, 1896. Physician, Devon and Exeter Hospital.

*** The medical man should hold his tongue, notwithstanding the force of the social arguments that can be brought to bear upon such reticence.—ED. L.

"TRANSFUSION OF SALINE FLUID INTO THE AXILLARY CELLULAR TISSUE IN CASES OF SEVERE HÆMORRHAGE."

To the Editors of THE LANCET.

SIRS,—The solution, I believe, generally employed is one drachm of salt to twenty ounces of boiled water. The ordinary table-salt was used in this case, as being that which was most ready to hand, and the amount roughly guessed at.

I am, Sirs, yours faithfully,

West Brighton, June 30th, 1896. ARTHUR H. DODD.

CHURCH SANITARY ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—May I make known to your readers that Sunday, July 19th, the seventh Sunday after Trinity, is suggested by the Church Sanitary Association as a suitable day for stimulating from the pulpit the efforts now being made by sanitary authorities and others in the direction of providing wholesome surroundings for all? The Gospel for the seventh Sunday after Trinity is of particular application to this subject because it contains the story of the disciples distributing food to people who were already in the enjoyment of fresh air, pure water, and abundant light, as if to indicate the Divine will that men should enjoy fulness "as well for the body as the soul."—I am, Sirs, yours obediently,

F. LAWRENCE,

Hon. Sec., Church Sanitary Association.

Westow Vicarage, York, July 6th, 1896.

MEDICAL MAGISTRATES.—Mr. J. C. R. Husband, L.R.C.P. Edin., M.R.C.S. Eng., has been placed on the Commission of the Peace for the city of Ripon.

THE BATTLE OF THE CLUBS.—XXXVI.

(*Continued from p. 57.*)

LINCOLN MEDICAL PROTECTION FUND.

WE have received the following list of additional subscriptions:—

	£		
E. J. Leapingwell, Cheadle	1	1	0
W. L. Hubbard, Rugeley	0	10	6
A. E. Larking, Chesham	0	10	6
A. D. Chapple, Weybridge	2	2	0
A. L. Bentham, Southsea	0	10	0
Cork and South of Ireland Branch, British Medical Association	3	3	0
Philip G. Lee, Cork	1	1	0
L. Maybury, Southsea	1	1	0
W. F. Brook, Fareham, Hants	0	10	6
John Mason, Windermere	1	1	0
Alfred Perkins, Exeter	1	1	0
A. P. Kingcombe, Towcester	0	10	0
C. M. Powell, Exmouth	2	2	0
H. T. Sylvester, Pimlico, S.W.	1	2	0
Wm. Moxon, Matlock	1	1	0
J. A. Armitage, Wolverhampton	1	1	0
Sir Hugh R. Beevor, Sergeant's-inn, E.C.	1	1	0
W. Hamilton Allen, Stanmore, Middlesex	1	1	0
G. C. Wilkin, Weymouth-street, W.	1	1	0
J. W. Walker, Spilsby	1	0	0
J. R. Milsome, Addlestone, Surrey	0	10	6
H. M. Morgan and F. M. Rowland, Lichfield	0	10	6
Geo. Adkins, Paignton	£0	10	0
M. C. Moxham, Stickney, Lincs.	0	5	0
T. V. de Denne, Cradley Heath, Staffs.	0	5	0
G. J. Hinnell, Bury St. Edmunds	0	5	0
Sir Edwin Saunders, Wimbledon Common	3	3	0
T. H. Dickson, H.M.'s Customs, E.C.	1	1	0
A. Cohen, Warrington-crescent, W.	0	5	0
C. H. Wise, Walthamstow	0	10	6
Robert A. St. Leiger, Watford	0	10	6
John Fraser, Kilsyth, Glasgow	0	5	0
E. Hurry Fenwick, Savile-row, W.	5	5	0
H. Griffiths, Kensington-square, W.	1	1	0
E. Bartlett, Connaught-square, W.	1	1	0
W. M. Harman, Winchester	0	10	6
R. Hingston Fox, Finsbury-square, E.C.	0	10	0
A. Campbell, Navenby, Lincs.	1	1	0
F. M. Blumer, Stafford	0	10	6
J. G. Barnes, Wheatley, Oxfordshire	0	10	6
A. H. W. Clemow, Kensington, S.W.	0	5	0
Previous lists	266	11	0

NOTTINGHAM AND DISTRICT MEDICAL UNION.

We have received from the honorary secretaries of this association, Mr. W. G. Laws and Mr. G. W. Paul, the following announcements with reference to the Union:—

Objects.

1. To encourage cordial relations between medical men practising in the district.
2. To give opportunities for discussion and interchange of views on the business side of medical practice.
3. To obtain the combined action and consolidated influence of members of the Union upon points of difficulty which may arise in Medical Aid, Contract and Hospital practice.
4. Generally to safeguard and support the interests of the medical profession in the town and district.

Rules.

1. This society shall be called the Nottingham and District Medical Union, having for its object to safeguard and support the interests of the medical practitioners in the town and district.
2. Every registered medical practitioner shall be eligible for membership if approved of by the council.
3. Each member shall pay an annual subscription of 5*s.*, due on May 1st in each year.
4. The affairs of the union shall be managed by a president, two secretaries and treasurer, and a council of fifteen members for the town and ten for the district. Nine shall form a quorum.
5. The officers shall be elected at the annual meeting in May of each year, except that three of the town and two of the district members of council shall be coopted by the council.
6. The council shall have power to fill up vacancies in their own body.
7. The council shall meet once a quarter and when convened by the honorary secretaries to consider applications for advice or assistance, and generally to carry out the policy of the union, and may call a general meeting of the union at any time if considered necessary.
8. A special general meeting shall be called by the president at any time upon a requisition signed by six members, such special meeting to consider no other topic than that for which the meeting was called.
9. No member of the union shall oppose any practitioner in any course of action which he may take with the previously expressed sanction of the council for the general good of the profession.
10. Any member acting, in the opinion of a special meeting called for the purpose, contrary to the laws and regulations of the union shall upon a majority of at least three-fourths of the members present be suspended or expelled, and without appeal, from the union.
11. A special meeeing, called for the purpose of considering the conduct of any member of the union shall only be convened after fourteen days' written notice has been sent to the last-known address of each member, and such notice shall state clearly the purpose for which such meeting is convened.
12. No new law shall be adopted and no existing law be altered or rescinded except at the annual general meeting or at a special meeting called for the purpose, and fourteen days' notice of such proposed alterations, signed by at least three members, shall be sent to every member of the union in the circular convening the meeting.

A list of the members of the union shows that all but a few of the medical men in the town have joined and a large number of gentlemen practising in the district, while we are assured that the majority of those who have stood out have expressed their sympathy with the project.

A copy of a letter which had been received from the London and Manchester Industrial Assurance Company, Limited, has also been sent to us. It has been made the subject of amiable treatment by the new Medical Union.

London and Manchester Industrial Assurance Company, Limited.
Chief Office, Southwark Exchange, London, S.E.
W. Hunter, Esq., M.B., C.M., 2, Crocus-street, June 4th, 1896.
The Meadows, Nottingham.

DEAR SIR,—First we would thank you for your courteous communication of the 1st inst. Gladly do we embrace the opportunity it affords us of replying to the various points upon which your union desires information.

1. The prospectuses containing names, &c. of medical gentlemen do not constitute "advertising," but for other reasons we decided some time ago to gradually discontinue them, and Nottingham is one of the districts for which we have already stopped printing them.

2. Our representatives are not permitted to "act as 'touts' for certain doctors," and anyone proved to be so acting, after having been cautioned a first time, would be dismissed.

3. In no wise does this company "sweat" the medical profession. Our shareholders have never received a penny out of the medical aid branch of the company's business, for the simple reason that we have never made any profit thereby and never expected or intended to. The apparent difference between the premium charged and the amount paid to medical gentlemen, less expenses, is more than explained by the fact which Mr. Plattoot pointed out to you, that we pay the doctors in respect of lapses during a quarter just the same as if we received the full quarter's premium. Our representatives are not encouraged to work the medical aid.

4. The difficulty of getting persons to submit themselves for a medical examination preliminary to joining is too great to be overcome in the matter of small assurances under £20, but all are required to sign a declaration of good health and freedom from chronic ailments at time of entry. If occasionally persons do get admitted who are not in a proper state of health at the time, the premiums they have paid are returned to them and their assurances cancelled on our hearing from the medical gentleman (who is paid for the quarter all the same) the first time the member applies for attendance that he or she was not a fit subject for assurance when accepted. The remedy is certainly in the doctor's own hands by following this simple course. No one, by the way, can receive medical aid through the company without assuring for a sum at death, therefore it will be apparent that our representatives are urged to adopt every possible precaution in the acceptance of lives.

5. People who are really in a position to pay ordinary medical bills are not desired by the company as members of our medical aid branch, and we like to be informed of such cases, that they may be inquired into with a view to the plan mentioned by Mr. Platfoot being adopted.

A medical gentleman intimately acquainted by long experience with the way this company's medical aid branch is conducted recently explained it to a sub-committee of the General Medical Council, who, he informed us, were satisfied with his explanations.

Yours truly,
W. WOODWARD, Managing Director.

On the strength of this letter the Nottingham and District Medical Union have considered it inexpedient to call upon the medical men attached to the society to resign at present. We have to say with regard to this letter: (1) If such prospectuses are not advertisements, what other name should be employed? The names of the medical referees are brought before the public in a manner that is unfairly prominent. 2. It ought to be easy to ensure the dismissal of some of the representatives. 3. The circular of the company announces that "the distinguishing feature of this company is that it not only enables persons to assure for a sum payable at death, but also to secure in case of illness the best medical attendance (at their own homes whenever necessary), medicine, and advice, the two benefits being combined for the small sum of 2½*d.* weekly." Will Mr. Woodward give a definition of the word "sweating"? 4. No person should be made the subject of medical aid until his physical condition, as much as his pecuniary condition, has been inquired into by the person from whom he is to receive charitable treatment—i.e., the medical man. 5. What precautions does the company take to prevent well-to-do persons from sponging upon the medical profession?

Lastly, let it be understood clearly that the General Medical Council has expressed no approval whatever of this society.

The London and Manchester Industrial Assurance Company, Limited, is not so unfair in its dealings with the medical profession as some of the Medical Aid Associations. It is more courteous and more businesslike. But we beg the Nottingham and District Medical Union to read our article published on April 4th of this year before they confide too much in amiable expressions. Our Special Commissioner there gave very detailed accounts of transactions which show the Assurance Company to be actuated by no benevolent feelings towards medical practitioners. This company desires people to insure their lives through its medium, and it certainly has no objection to enrol well-to-do people for that purpose. The thing which persuades the public, well-to-do as much as very poor, to pay the trifle each week to insure their own lives or those of their relatives is not the cash to be received at death but the medical treatment to be obtained for a pittance while alive, and this is offered to all alike, irrespectively of their means. The medical servant of the London and Manchester Industrial Assurance Company, Limited, dispenses charity. He gets no credit for this and does not choose the objects of his charity for himself. He is expected to be almost thankful for employment, while he has the unpleasant knowledge that many of the people whom he attends in return for a weekly copper are in better circumstances than himself.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Liverpool Students and Practical Midwifery.

THANKS to the enterprise of the Dean of the Medical Faculty of University College, Liverpool, medical students will in future be afforded better opportunities of acquiring a knowledge of practical midwifery than have hitherto been available. A house has been rented in Brownlow Hill adjoining University College, in which will reside a house surgeon and two students desirous of attending outdoor cases. Arrangements are in progress by means of which notice may be given at this house of any cases of labour occurring amongst the poor, which will be promptly attended by the students in residence, or by the house surgeon in their unavoidable absence. The house surgeon is to be apprised of any abnormal case where his assistance will be required. He is also to give five clinical demonstrations out of every twenty cases attended by students. Liverpool medical students have hitherto been severely handicapped by the want of proper instruction in practical midwifery, and have consequently been compelled to proceed to Dublin in order to acquire it—a fact which has long been deplored by students and teachers here alike. Better things are now in store, and in course of time it is hoped that, when the fact of the new departure has become widely known throughout the city, the cases will be sufficiently numerous to supply the desired means of instruction. Dr. Arthur Wallace has kindly consented to go in residence for the first month or so.

Muzzling of Dogs.

The Ladies' Committee of the Royal Society for the Prevention of Cruelty to Animals have addressed a communication to the City Council alleging, among other things, that, though muzzling does not amount to cruelty, the closing of dogs' mouths retards perspiration, which takes place by the mouth and not by the skin, and that, owing to such unnatural restrictions, dogs are rendered ferocious and dangerous. They drew attention to an order of the Lancashire County Council of May 11th exempting from the muzzling order dogs wearing a collar with the name and address of the owner legibly engraved thereon. This was all that was asked for. The City Council could not see their way to interfere with the present arrangements, as Dr. Hope had recently presented a report to the Watch Committee on the subject. In it he mentioned that three cases of rabies from dog bites had occurred in Liverpool since June 13th, and consequently he was unable to advise the committee to relax the order. Dr. Hope had also expressed regret that districts adjoining one another did not act in unison in the matter of dog muzzling.

Workhouses and City Hospital Nurses.

The select vestry are engaged in complying with the formalities required by the Local Government Board as essential to their approval of the plans submitted for the erection of a new home for the workhouse nurses at a cost of £7500. The patients under treatment in the sick and infirm wards, from the last report, numbered 1297. The mortality for the week was 22, being the same number as in the corresponding week of last year. Mr. Jenner Fust, Local Government inspector, in his recent visit to the Toxteth Workhouse, complimented the board of guardians upon the great improvement he had noticed in nursing as compared with what had existed some time back—a matter which it would afford him pleasure to favourably report upon. Mr. George Grierson has applied to the House Committee of the Corporation

City Hospitals for permission to invite their nurses to Llandudno for a day's change and fresh air. The application was cheerfully granted by the committee, and no doubt the invitation will be gratefully accepted by the nurses.

Bequests to Liverpool Charities.

The late Mr. Arthur R. Gladstone of Court Hey, near Liverpool, a nephew of the Right Hon. W. E. Gladstone, has bequeathed £1000 to the Royal Infirmary, £500 to the Liverpool Infirmary for Children, £500 to the Seamen's Orphan Institution, and £2000 to the Liverpool Bluecoat Hospital.

Demolition of Insanitary Property.

It will not be Dr. Hope's fault if insanitary premises are allowed to remain in their present unhealthy condition. He keeps a watchful eye thereon, and I am pleased to say that he has advised the City Council of a further large batch of insanitary property, in regard to the demolition of which the grand jury at the next city sessions will probably be asked to make a presentment. The property is confined exclusively to houses in courts and back-to-back dwellings in more or less low quarters of the city. The reports had reference to 950 houses, the condition of all of which will be submitted to the consideration of the grand jury, who, it is hoped, will order the demolition of the property, the sites serving for the purpose of new cottages. For the most part each house consists of three tiny rooms, placed one above the other, connected by staircases leading directly from one apartment to the other, without any intermediate landing, so that practically the same atmosphere pervades each of the three rooms. The houses are back to back and side by side with others of similar construction; consequently there can be no back windows or even side windows, or any through ventilation. Neither is there any yard space attached to them nor any sanitary convenience private to each house, a circumstance which involves a great deal that is prejudicial alike to decency and to health. There is no water-supply direct to each. The receptacles for ashes or other refuse are placed in the courts for the common use of the inhabitants. The entrances to the courts themselves are narrowed or even in some cases converted into narrower tunnels by the upper rooms of the houses in the contiguous street extending over them. On the whole the property is in a general condition of dilapidation and unwholesome ruin. The interior walls and ceilings are stained by saturation and are foul-smelling. Such, in brief, is a description of the houses and their environments.

July 8th.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Lunacy in Somerset.

THE report of the Visiting Committee of the Somerset and Bath Lunatic Asylum was presented at the quarterly meeting of the Somerset County Council, held on June 30th. It stated that the numbers of patients on the books of the asylum on June 18th, 1896, were: males, 485; females, 602; total, 1087, being an increase of 42—viz., 22 males and 20 females—as compared with the corresponding date of 1895. The expenditure on account of the Western Asylum up to the present time amounted to £88,775 4*s*. The committee have resolved to light the new asylum at Cotford by means of electricity at a cost of £3500. It was decided to carry out the plans for the Cotford Asylum to their full extent—viz., 700 beds, for which the plans were originally prepared and for which the administrative block was calculated, the Visiting Committee having recommended this upon the grounds of expediency and economy.

Unvaccinated Railway Servants at Gloucester.

At the meeting of the rural district council held on June 30th Dr. Bond, the medical officer of health, reported four cases of small-pox in his district after three weeks had passed without one occurring. Two cases he attributed largely to persons engaged in the Pickering treatment, and the other two were servants of the Midland Railway Company, a number of whom were still unvaccinated. A clergyman stated that seven cases in the parish of Barnwood were attributable to railway servants. After a member had remarked upon the inconsistency of the company in stopping excursions from the city on account of the epidemic, and then not helping them to stamp it out by getting their men vaccinated, a resolution was carried drawing the attention of the Midland Railway Company to the number of men employed by them in Gloucester who were still unvaccinated or had not been re-vaccinated.

Drought in Devon and Cornwall.

A remarkable drought is being experienced in Devon and Cornwall. The water-supply of Plymouth and other towns has become so short that water for domestic purposes is only turned on for a limited period. With the exception of a little rain at the beginning of June the drought has lasted since the middle of March. No such scarcity of water has been known since 1869. The total rainfall for the six months of 1896 is less than eight inches.

The Cost of the Recent Small-pox Epidemic at Cardiff.

At the meeting of the Cardiff board of guardians held on July 4th it was stated that the recent epidemic of small-pox in Cardiff was stamped out at a cost of £267, which sum included the maintenance of patients at the Sanatorium and of the nurse and the gratuity paid to her, and also the value of the clothing destroyed at the workhouse.

Infant Mortality at Cardiff.

At a recent meeting of the Cardiff Board of Guardians permission was given to the Cardiff Social Reform Council to distribute leaflets, issued by the Society for the Prevention of Cruelty to Children, containing hints to mothers on the treatment and feeding of infants. The chairman stated that last year, according to the report of the county medical officer of health (Dr. Williams), the deaths of children under the age of two years were 220, the highest rate in England or Wales—the average of the country being 160.

New Water-supply at Gloucester.

Gloucester was *en fête* on July 1st, on the occasion of the inauguration of the new water-supply. The water is pumped from the new red sandstone at Newent into a reservoir, and flows thence by gravitation to Gloucester, the main being carried over the river Severn by a steel lattice bridge. The scheme has cost £45,000. The Mayor turned on the water at Gloucester-cross, and a public banquet followed.

The Jenner Collection at the Cardiff Exhibition.

Some interesting letters are to be seen in the Jenner collection which is on view in the Art Gallery of the Cardiff Exhibition. Amongst these is a letter from the Rev. Rowland Hill and another from Napoleon the First in reply to Jenner's request for the release of a friend who was a prisoner. It is related of the incident that when this request came the Emperor said to the Empress Josephine, "I can refuse Jenner nothing." Jenner's visiting book is also exhibited and contains several names, including that of Lord Bute (father of the present Marquis) and the Duke of Clarence.

The Mud on the Banks of the River in the New Cut, Bedminster.

At the meeting of the Bristol sanitary authority held on June 22nd a memorial was read from ratepayers at Bedminster, Bristol, drawing attention to the foul smells arising from the mud on the banks of the river in the New Cut, stating that the amount of sewage there was increasing, being an intolerable nuisance and prejudicial to health. The inspector of nuisances reported that there was a considerable deposit of mud in the New Cut. The docks' committee had sent their steam scraper to work there, and last year the cost of similar work was charged to the sanitary committee. The discharge of the whole of the sewage into the river, he added, must be more or less offensive and would no doubt sooner or later have to be dealt with. The chairman said that if they were to face the whole question of taking the sewage out of the river it might mean the expenditure of half a million of money. The sanitary authority decided to disinfect the banks where necessary, disinfectants having already been used for some time near the ferries. Eventually the question of dealing with the sewage will have to be taken in hand, the expense notwithstanding, and certainly the sooner the objectionable plan now employed of simply emptying the sewage into the river is altered the better will it be for the residents of Bedminster.

July 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Home for Nurses in Paisley.

THE new nurses' home in connexion with the infirmary now in course of erection in Paisley was formally handed over to the infirmary directors on the 3rd inst. The home is a result of the liberality of Mr. Peter Coats, who, when the infirmary plans were under discussion, generously offered to erect a separate building for the accommodation of the hospital nurses. This has now been completed, and the appropriate nature of the gift is universally appreciated. No pains or expense have been spared to adapt the home for its special purpose, the appointments in every respect being very complete. Accommodation is provided for forty nurses and the outlay is estimated at fully £8000. At the formal ceremony Mr. Coats's generosity was acknowledged by the chairman of the directors and by Dr. Graham on behalf of the medical staff.

Public Health Congress in Glasgow.

The arrangements in connexion with the proceedings of the Congress are now in a fairly complete state. The delegates, who are expected to number about 700, will be received on the opening day, the 23rd inst., by the Lord Provost and the President of the Institute in the Randolph Hall of the University, after which Sir James Bell, the president-elect, will deliver his presidential address. Other important addresses will be those of Professor William Ramsay, as President of the Chemical and Engineering Section, and of Councillor Crawford, as President of the Municipal and Parliamentary Section. Amongst the social features of the Congress are to be a reception by the Lord Provost and Lady Bell, a garden party in the botanic gardens by the President and Fellows of the Faculty of Physicians and Surgeons, and a dinner given to the delegates by the corporation. There are also to be excursions to various places of interest, and visits will also be paid to the more interesting of the municipal works. Amongst other delegates nominated Professor Murdoch Cameron represents the University of Glasgow and Dr. George Middleton the Glasgow and West of Scotland Technical College. As the meetings of the Congress are to be held in the University buildings it has been considered advisable to alter the date of the graduation ceremony from the 23rd to the 21st inst.

An Aged Postmistress.

A somewhat remarkable instance of longevity is reported from Dalton. Mrs. Betsey Swan was appointed postmistress there fifty years ago, and continued to discharge the duties of the position until a few days before her death at the age of ninety years. When the telegraph system was introduced into Dalton some two years since Mrs. Swan, to the surprise of the officials, rapidly made herself an efficient operator.

Handsome Gift by a Medical Man.

Dr. Thomas Reid, Lecturer on Diseases of the Eye in the University of Glasgow, has presented to the Airdrie Public Library and Museum the sum of £1000 as well as a number of valuable books and a powerful telescope. Dr. Reid recently received the honorary degree of LL.D. from his *alma mater*.

The late Dr. John Grieve.

At a recent meeting of the Natural History Society of Glasgow the Chairman, Professor Thos. King, read a memorial notice regarding the late Dr. John Grieve, F.R.S.E., F.L.S. Dr. Grieve had been a member for more than forty years and had frequently contributed valuable papers to the society.

Dinner to Mr. John Burns of Bridgeton, Glasgow.

On June 30th a graceful compliment was paid to Mr. John Burns of John-street, Bridgeton, Glasgow, who is the oldest medical practitioner in the eastern district of the city. He became a Licentiate of the Faculty of Physicians and Surgeons of Glasgow in 1846, and on his completion of fifty years of active practice a number of friends entertained him at dinner. The chairman was Professor W. T. Gairdner, who referred to the guest of the evening as an earnest worker, actuated solely by the desire to benefit his patients and not possessed by the ambition which craves for public honours and rewards; the first half-century of his professional career had come to a close amid the congratulations of a host of friends, and for the second half century, which would open on the morrow, they heartily wished him a continuance of health and prosperity.

July 8th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Lady Examiner at the Royal College of Surgeons.

IN connexion with the recent appointment of a lady as examiner in midwifery and gynæcology the students of the Royal Colleges of Physicians and Surgeons are still dissatisfied. They held another meeting at the Royal College of Surgeons last week to discuss the negative reply given by the Council to their petition and to form an association of those students who are preparing for the examinations of the Colleges under the Conjoint scheme. The chairman of the meeting, which was largely attended, said that he objected to being orally examined in obstetrics by a lady while fully qualified gentlemen were available; he also remarked that the lady in question could not have had a very large experience, inasmuch as she had been a student with some of the men whom she was about to examine. It is clear that the students have something to say in the way of argument in support of their demand. On the other hand it is quite as manifest that the Council could not possibly quash their own formal appointment, for, as stated in their reply, "the appointment was actually made and they had no power to rescind it during the period for which it extended—namely, one year." The students were thus given a hint that their grievance might not be of long duration, while rumours were not wanting that the lady in question might voluntarily put an end to it at an earlier date.

Scarlet Fever in Dublin.

Small-pox has only recently subsided, having first appeared on May 24th, 1894, and having continued practically for two years. The last case was discharged in the second week of June, and it will be seen from the statistical report of the health of Dublin which appears each week in THE LANCET that the disease has now entirely disappeared. We are, however, at present threatened with an outbreak of the malady which may be said to rank only second to small-pox in fatal infectiveness—namely, scarlet fever. The Dublin Sanitary Association wrote to the Local Government Board last month on the subject, and the latter at once placed itself in communication with the boards of guardians of the north and south Dublin unions and with the medical superintendent officer of health of the city. As a result of this action, a joint committee representing both boards was appointed to confer with the hospital authorities as to the accommodation available, and to ascertain from the corporation whether their premises at the Pigeon House Fort could be utilised in case of a serious emergency. There are at present over 200 cases of scarlet fever in the city, so that the report of this committee is awaited with interest. The vexed question as to whether the wards of general hospitals situated inside the city should be used for the treatment of scarlet fever, or whether the cases should all be removed for isolation to a special institution in the country, is likely to be revived. Sir Charles Cameron is well known to be strongly in favour of the latter course and the authorities and the general hospitals of Dublin have long ago recognised the wisdom of his advice to the extent of refusing to admit small-pox into their ordinary fever wards. It remains now to decide whether such an infectious disease as scarlet fever should not be treated in the same way. From the practical point of view there seem to be only two alternative methods of dealing with the present outbreak—either to admit the cases as heretofore into the zymotic wards of all the city hospitals, making suitable provision for the isolation of convalescents outside the town, or to devote one or more of the existing city hospitals to the treatment of scarlet fever exclusively.

The Royal Hospital, Dublin.

Field Marshal Lord Roberts, V.C., Lady Roberts, and the Hon. Aileen Roberts visited the Royal Hospital Infirmary last week, accompanied by Lord Settrington, A.D.C., Miss Carte, and the staff surgeon, Mr. Carte, J.P. The wards were visited and all the old pensioners addressed by Lady Roberts, who spoke a few kindly words to each of them. Lord and Lady Roberts expressed themselves as much pleased with the state of the infirmary and of its patients.

Health of Belfast.

At a meeting of the City Corporation, held on July 1st, it was decided to adopt the suggestion of the Public Health Committee, recommending that the site for an infectious diseases hospital be a parcel of ground containing sixty acres in the Purdysburn Estate, at present in the possession of the governors of the lunatic asylum. In reference to the pollution of the Annswater River, the Public Health Committee have instructed the town clerk to advise them as to the legal method of proceeding against the parties causing the nuisance. For the four weeks ending June 20th, the death-rate in Belfast was 24·4 per 1000, while for the same period in Dublin it was 24·2. In Belfast, the death-rate from zymotic diseases was 4·3, while in Dublin it was 1·6. In Belfast the mortality during the same period in 1895 was 25·1 from all causes, and 2·2 from zymotic diseases. Although the mortality is a little less than it was in the same period in last year, yet the health of the city is not in a satisfactory condition, especially in the matter of infectious diseases, measles and scarlet fever being prevalent in every part of the city, as also is typhoid fever, though in a less degree.

The Giant's Causeway.

The proposal to enclose the Giant's Causeway and to charge visitors a toll is exciting the greatest interest in all parts of Ireland, journals of every shade of political opinion denouncing it as a piece of utter vandalism. The council of the Irish Tourist Association passed a resolution on July 3rd that the proposal of the syndicate who have purchased the Causeway to enclose it "should be resisted by every possible means." The committee of the Belfast Branch of the Irish Tourist Association held a meeting in the city hall on July 7th to oppose the scheme, and there is also to be a meeting of the inhabitants of Portrush to devise action. The town commissioners of Ballymena and Coleraine have protested against it. It is most unfortunate, when efforts are everywhere being made to develop the tourist traffic of Ireland, that this syndicate should purchase one of the great natural sights of the country and charge for admission to see it. There is a general belief that the syndicate will be forced to go to law in the attempt to establish the non-existence of any right of way.

The Down District Lunatic Asylum.

The governors of this well-managed institution decided, at their monthly meeting on July 4th, to adopt the "Plenum" system of heating and ventilating the asylum. This plan, which was strongly recommended by the resident medical superintendent, Mr. Nolan, and by the county surveyor for Down, Mr. P. C. Ewan, C.E.—who have taken great pains in working out the details of the system—was also supported by the Commissioners of Control in Dublin, and will cost about £7000.

Cork Medico-Chirurgical Society.

The Cork Medico-Chirurgical Society was originally founded for the purpose of discussing papers on medical and surgical subjects and also for the exhibition of pathological specimens. Some few years ago it became amalgamated with the Cork Medical Book Club, and during the past twelve months a further step in its evolution has been taken by making it the nucleus of a medico-social club. To meet the increased requirements the subscription has been doubled and premises in a more central position have been secured. This is certainly a step in the right direction, as members of the local profession will have greater facilities for meeting each other and informally discussing such burning questions as "the battle of the clubs." The first meeting of the newly organised society has been held for the purpose of electing officers, and one of the most noteworthy incidents was the unanimous election of Mr. Philip Lee to the Vice-presidency. It is seldom that one so junior in the profession is called on to occupy such a responsible position, and without detracting in the least from Mr. Lee's entire suitability for the post I am only mentioning what is an open secret when I say that he was appointed mainly in recognition of his Herculean services as honorary secretary to the Cork Medical Association extending over the whole period since "the battle of the clubs" was initiated by the medical practitioners of Cork.

The Battle of the Clubs at Cork and Lincoln.

The South of Ireland Branch of the British Medical Association has forwarded a cheque for three guineas to the Lincoln fund. The great majority of the members of the branch are resident in Cork and, though they have their own fight to maintain, they felt they would not be doing their duty to themselves and to the profession if they did not in some way express their approval of the gallant struggle in which their Lincoln brethren are now engaged.

Cork District Lunatic Asylum.

Some very important business was discussed at the last meeting of the governors of the Cork Lunatic Asylum. A resolution was passed directing the attention of the Government to the fact that at present the initiative with regard to expenditure on buildings and alterations rests almost entirely in the hands of the inspectors of the board of control and the resident medical superintendent. The governors urge that a change ought to be made in the law to enable them as representatives of the local ratepayers to have more control over the finances of the institution. One governor pointed out that they only desire as much power as is freely given to boards of Poor-law guardians all over the country. With regard to another matter the governors acted very judiciously by recommending an increase of pay for two male and three female attendants who had passed the examination of the Medico-Psychological Association and obtained certificates for proficiency in the nursing of insane patients.

July 7th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Red Cross in the Eritrea: Professor Postemski's Report.

BY no country has the Red Cross Association been put more fully *en évidence* of late years than by Italy—engaged as she has been in war on a considerable scale involving military movements proportionately large and culminating in more than one general engagement. Its resources have been vastly increased by the contributions of patriotic Italians all the world over, and its organisation and *personnel* have been as good as Italy's well-known interest, not to say pride, in the service could effect. In these circumstances the experiences of Professor Postemski, who holds with such acceptance the chair of Clinical Surgery in our university, have special value; and a few notes, in anticipation of the complete official report he was commissioned to draw up, will not be out of place in THE LANCET. The first "ospedale di guerra" (hospital on a war footing) was sent out to the Eritrea in April, 1895, and was actively utilised till the close of May last. During the month of March of this year there were more than 1651 sick and wounded under treatment, representing a total of nearly 19,000 days in hospital. The capacity of this hospital was augmented to 200 beds, and after the military disasters of Amba Alagi and Adowa (or more properly Abba Carima) a still further increase in accommodation was effected till the daily inmates of the wards averaged 263. The second hospital was not put on a working basis on account of the raising of the siege of Adigrat. In addition to these there were sent to the seat of war ten ambulances, each conducted by a medical officer, with a full staff of subordinates. Each ambulance was equipped with everything necessary for the treatment of 150 cases of serious wounds and of 300 cases of minor gravity. During all the service there was, according to Prof. Postemski, not a suspicion of friction or jealousy, but every department of the Red Cross service worked harmoniously with the regular Army Medical Staff which it had come to supplement, not to supersede. This was particularly the case at Adi Ugri—the Red Cross assisting the "Sanità Militare" as part of the latter—indeed, sometimes indistinguishable from it—with the result that from March 3rd (two days after the defeat at Abba Carima) to the 31st 1700 sick and wounded were cured or relieved. So admirable was the spirit animating both services in behalf of the colony in general that the Red Cross, on leaving the Eritrea, consigned for its benefit the entire *matériel* of the Ospedale di Guerra No. 29, consigned it, moreover, to the Sanità Militare. Every duty enjoined by the Army Medical Service on the Red Cross was cheerfully and effectively performed by the latter—down to the attendance on the sick females of the expedition. The Red Cross *personnel* even put its resources at the disposition of the military arm when on the march for the transport of the sick and wounded. This was

conspicuous on a memorable occasion—the conveyance of the sick and wounded from the altipiano (uplands) to Massowah when the Red Cross did duty as escort to the caravan. Professor Postemski reports as to the wounded that their lesions were in general not serious; the really gravely wounded remained in the hands of the enemy from want of time and means to carry them away after such disasters as Amba Alaga and Abba Carima. "I could never have believed," he added, "that their *morale* could have been so high. Our men, comprising some thirty mutilated, accepted their hard fate with heroism and resignation. The native troops, on the other hand, bowed to their mutilation as part of their destiny."

A Merited Honour.

With the suppression of the Direzione di Sanità its head, the Commendatore Pagliani, resumes his post as professor of hygiene in the University of Turin. Whatever may be said of the former step (and in THE LANCET of June 6th, p. 1598, the reasons which had guided the Marchese di Rudini in taking it were fully noted), there can be no doubt as to the academic gain resulting from the latter, Professor Pagliani's tenure of the chair of public health having been one of the most brilliant episodes in the recent history of the Subalpine School. In consideration of the two events—the suppression of the Direzione di Sanità and Dr. Pagliani's return to his professional duties—the King has just promoted him to the honour of Commendatore of the Order of St. Maurice.

The Cold Douche in Public Schools.

Milan, as becomes the most enterprising of Italian cities, has introduced into her schools an innovation which, in southern climates at any rate, has much to recommend it. This is the subjection of the young pupils to the cold affusion, with appropriate apparatus, and under the medical eye. The experiment was made for the first time the other day at the communal school in the Via Giuseppe Giusti, in presence of civic representatives, of the municipal medical adviser, Dr. Bordoni Uffreduzzi, and of Dr. Sacchi, one of the clinical staff of the Ospedale Maggiore. Forty boys, accommodated in a disrobing room fitted with benches, were made to strip and then, covered only by their large drying towel, were told of in relays of five to a contiguous hall, where they were all made to take the douche. Thereafter, provided with soap, they cleansed themselves from head to foot with fresh water, and returned to the disrobing room to dry and dress themselves. The mechanism of the douche is simple. Five small reservoirs are suspended in a row at a height of two and a half yards from the floor and furnished, laterally, with two chains. Pulling that on the right, the boy beneath is douched *a colonna* (in a volume of water) or pulling that on the left, he is douched *a pioggia* (in a shower). The *locale* has been modelled on the lines of similar *locales* in barracks and may be heated in winter. Personal ablution is one of the minor virtues in which modern Italy has fallen behind her classical forerunner, and the Milanese innovation (or rather return to antique usage) may be imitated with advantage, practised as it is under medical surveillance.

A Providential Escape.

The other morning Professor Vincenzo Montenovesi, sometime Member of Parliament, and surgeon-in-chief to the Santo Spirito Hospital, was in his private room off the wards making a slight change in his dress before proceeding to the operating theatre. In the act of doing so, a revolver fell from a pocket and exploded. The charge of one of the chambers took effect in the left foot, inflicting a wound fortunately of little severity. Professor Montenovesi was at once attended to by his colleagues and will be able to leave his bed in the hospital and resume work in a few days. Had the angle of incidence at which the revolver met the ground been less acute the lesion would, it is said, have been very serious—possibly fatal.

July 3rd.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Atrophy of the Female Reproductive Organs.

IN a paper read before the Vienna Medical Club Dr. Fischer classified atrophic conditions of the female reproductive organs as either physiological or pathological, puerperal or non-puerperal, primary or secondary. Atrophy of these organs is perhaps more often associated with phthisis than with any other pathological condition, but it is not a constant concomitant of that disease, even in its advanced stage. The ovaries become concentrically atrophied, with proliferation of the connective tissue and shrivelling of the follicles; they also sink down in the pelvis by reason of the relaxation of the broad ligaments. The uterine walls at the same time become thin, owing to atrophy of the muscular layer, inflammatory changes occur in the mucous membrane of the cervix, and the vaginal portion undergoes erosion. Menstruation ceases and is replaced by menorrhagia and metrorrhagia, together with disturbances apparently caused by toxic influences and similar to those which accompany a premature climacteric. Toxic atrophies have also been described, showing themselves in myxœdema and Graves's disease and after extirpation of the thyroid gland. This atrophy may also follow acute zymotic diseases, such as enteric fever, arthritis, scarlet fever, and influenza, in which the ovaries become enlarged in consequence of inflammation and functional disturbance, but the uterus undergoes gradual atrophy. The same effects may result from hæmorrhage into the stroma of the ovaries in cholera, enteric fever, and septicæmia. Chronic alcoholism produces shrivelling of the ovary, but chlorosis causes no atrophy.

Hour-glass Constriction of the Stomach.

At a meeting of the Croatian Medical Society Dr. Schwarz described a case of hour-glass constriction of the stomach occurring in a woman thirty years of age, who had for five years suffered from pain and vomiting, and in whose gastric fluids neither hydrochloric nor lactic acid was discoverable. Laparotomy showed that the stomach was divided into two parts by a constricting furrow in the lesser curvature, the cardiac portion being the greater and the pyloric portion the smaller of the two. The great curvature was of normal outline. Constriction of the stomach may be either congenital or acquired: if the former it does not cause any serious symptoms; when acquired, it may be due to the cicatrices of ulcers, which are commonly situated in the lesser curvature. There is no interference with nutrition as long as the communication between the two parts of the stomach will admit several fingers; gastric symptoms occur only when this aperture is narrow and one division of the stomach is dilated. Hour-glass constriction of the stomach may be diagnosed by the characteristic shape when it is distended with flatus and by the fact that when it is washed out the effluent water may be clear.

Deciduoma Malignum.

At a meeting of the Vienna Medical Society Dr. Neumann read a paper on deciduoma malignum, a disease which was first described by Saenger in 1882. As a rule it occurs after delivery, abortion, or cystic mole, and it may sometimes be observed even in childbed. It is characterised by obstinate hæmorrhage which renders the sufferers too weak and anæmic to undergo an operation. Metastatic deposits are formed in the vagina and lungs; in the latter case there is hæmoptysis which may cause death by asphyxia. The initial symptoms are hæmorrhage associated with enlargement and softening of the uterus; the disease may be distinguished from cystic mole by microscopical examination of portions removed by curetting. The general form of the tumour is like that of a polypus, its tissue has a reddish-grey colour and shows hæmorrhages, and in growth it resembles sarcoma.

July 6th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera Figures.

ALEXANDRIA still provides two or three new cases a day, and in one of its suburbs, Aboukir, there was a sudden outbreak during the week, which was apparently due to an infected well, for it all subsided directly Dr. Bittar closed the existing wells and provided a new one for the district. Cairo now has an average of four new cases every day, though to-day's bulletin records only one case of cholera. The district of Dessouk in Lower Egypt is still seriously attacked, and furnishes daily an average of 37 new cases, while an even greater number is reported from the town and

villages of Fayoum above Cairo. But besides these towns which are worthy of being mentioned by name there is a daily return of 138 other cases from the rest of Egypt, some from important towns like Zagazig, but mostly from country villages. The cholera bulletin of to-day reports altogether for the last twenty-four hours 120 new admissions, deaths in hospitals 85, deaths in private houses 78, recovered 34, still remaining under treatment 471. During the months of May and June 180 new outbreaks in towns and villages have been dealt with by the Sanitary Department, and this means that every spot has to be visited and controlled by an English inspector, all of whom are working themselves to death in the most unselfish way.

Rise of the Nile.

The Nile is already changing at Cairo, but this is only the advent of the White Nile, which here is called green from the numbers of *algæ* floating on it. Dr. Kaufmann has just paid a visit to Assouan to examine these *algæ*, which puzzle the water experts, and are said to travel all the way down from the Equatorial Lakes. The Blue Nile, which is here called by the natives red and is really a sepia colour, is not due here till about July 25th; but I hope we may confidently before the end of July look for an improvement in the cholera returns of Upper Egypt and even of the Delta. In 1883 Upper Egypt was infected between the middle of July and the middle of November, which shows that a rising Nile alone is not enough to prevent or finish a cholera invasion; but the comparison is not fair, for in 1883 practically everything was left to Providence, and Providence declined to interfere.

Cholera Hospitals in Cairo.

The infectious hospital at Abbassiyeh has been used for most of the districts of Cairo since the beginning of the epidemic here, but two temporary hospitals at Old Cairo and Boulak were opened by Rogers Pasha when the cases became numerous. In Old Cairo over ninety men, women, and children have been treated in wooden huts which were hastily and cheaply erected upon a piece of spare land, while at Boulak a ruined bakery formerly used by the Egyptian army was turned into a fairly good hospital in five days' time. A gang of thirty men was employed for three days in levelling the ground and floors, knocking out windows, and brushing away the cobwebs of ages. Here some forty-three patients have been treated. Both these hospitals are being rationed from Kas-rel-Aini, whence also have been drawn house physicians and some of the attendants. Boulak so far has provided 73 cholera cases for the bulletins, including 48 persons who have been found dead in their homes or occasionally in the streets. This is very different to the figures in 1883, when, out of a total mortality in Cairo reckoned at 6650, no less than 2859 were from Boulak alone. Next to Boulak Old Cairo was the quarter most severely smitten in 1883. Cholera appeared there on July 17th and lasted till Aug. 14th, causing 964 deaths, 93 of which occurred on July 30th.

Cairo, July 1st, 1896.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Adelaide Hospital Imbroglio.

THE profession in Australia has received with great regret and some surprise the announcement that men of standing in Great Britain have accepted the positions of resident surgeon and resident physician at the Adelaide Hospital. Just, however, as the Government was congratulating itself on the victory it had thus achieved in its dispute with the late honorary staff it suddenly awoke to the fact that the new arrangement meant ruin to the medical school. It was obviously impossible that the newly appointed pair of officers could do all the work of a metropolitan hospital of over 300 beds and give adequate clinical instruction as well. The Board of Management of the hospital accordingly sought some way out of the difficulty and held a conference with the University authorities. The conference decided that the medical school must be maintained, and in order to provide clinical instruction it was arranged to set apart one male and one female medical ward, one male and one female surgical ward, and one ophthalmic ward, for clinical purposes, and place them under the charge of clinical lecturers to be appointed by the University. Even supposing this arrangement provided adequate clinical material, which it does not, the difficulty of obtaining clinical lecturers remains. The late honorary staff has acted as one body hitherto, and its members are hardly likely now, after all they have suffered at the hands of the Government, to relinquish the position they have taken up. In a city of the size of Adelaide it will be almost impossible to find efficient and capable clinical teachers outside the late staff, and to appoint incompetent men would be disastrous to the school. Possibly, for the sake of the school some of the late staff may see their way to relent, and further developments will be anxiously waited.

Retrenchment in the Department of Medical Adviser to the Government of New South Wales.

The public service in New South Wales has always been a very large body, owing largely to the tendency to centralise all departmental work in Sydney. The Public Service Board has been looking into the question of remodelling the Service with a view to retrenchment, and very radical changes are proposed in the Colonial Secretary's department, in which is the sub-department of Medical Adviser to the Government. The medical work is under the charge of Professor Anderson Stuart, and under him are seven salaried medical officers and several others remunerated by fees. The salaried officers are: Government Medical Officer and Vaccinator, Dr. Paton; Government Pathologist, Dr. Rennie; Visiting Medical Officer to Darlinghurst Government and Darlinghurst Reception House for Insane, Mr. O'Connor; Superintendent of the Coast Hospital, Dr. Taylor; Superintendent of the Asylums at Parramatta, Dr. Waugh; Assistant Medical Officer, Dr. Violette; and Ophthalmic Surgeon to the Asylums, &c., Mr. Maher. Under the new arrangements, by which £1500 per annum will be saved, Dr. Waugh is retired and his place has been taken by Mr. O'Connor. Dr. Rennie is also retired. Dr. Taylor is made Assistant Government Medical Officer and Pathologist, and, with Dr. Paton, will perform the duties previously performed by Mr. O'Connor and Dr. Rennie, and will discharge those duties in connexion with the passing of ships and giving of bills of health previously performed by private practitioners and paid for by fees. Mr. Russell, of the Parramatta Asylum for the Insane, will succeed Dr. Taylor at Little Bay. Mr. Maher is also retired, and his duties will be performed by the various medical officers of the different institutions.

Alleged Detention in a Leper Lazarette of a Non-leper.

It appears that about ten months ago Dr. Taylor, Medical Superintendent of the Little Bay Hospital and Leper Lazarette, reported to the Board of Health that in his opinion one of the patients confined there was not suffering from leprosy. The patient, however, still remains in the lazarette. Public attention having been called to the matter by a letter to the press, the Board of Health stated that its medical advisers differed from Dr. Taylor and maintained that the patient was suffering from leprosy, and under these circumstances the Board was not justified in releasing the patient. It has also been pointed out that the Leprosy Act is defective and requires amending so as to safeguard the committal of a leper, in the same way that the certification of lunatics is. In the case of a leper there is no provision for appeal against his incarceration and there is no inspection of the lazarette.

Vaccination in New South Wales.

Vaccination is not compulsory in the colony of New South Wales, and this salutary measure is very much neglected by the population, as shown by some returns prepared by the medical adviser to the Government. This return gives the number of births during the last thirty-four years and the number of vaccinations performed by the Government vaccinators during the same period. The total number of births was 906,352 and the number of vaccinations 257,855, or a proportion of 28·44 vaccinations to every 100 births. Year after year the Board of Health and the medical adviser to the Government have earnestly urged the introduction of compulsory vaccination, but without avail. Should small-pox once become epidemic it would undoubtedly produce widespread devastation in the colony. Fortunately the quarantine regulations have been so satisfactory that the disease has never got a chance to become epidemic; but some day, perhaps, a case or cases may slip in unrecognised, and in a population so unprotected the disease will spread rapidly.

Hospital Saturday in Sydney.

The Hospital Saturday movement in Sydney continues to

progress. The last collection on May 3rd realised nearly £4000. In 1894 the collection amounted to £1800 and in 1895 to £3400. The cost of collection is about 5 per cent. Ladies were stationed all over the city with collecting boxes, and they report that they received almost universal kindness in their raid on the pockets of the passers-by. All kinds of money were received, from cheques and £10 notes to half-pennies.

Hydatid Eruption in connexion with an Unruptured Cyst.

In the *Australasian Medical Gazette* of May 20th Dr. McMurray records a case in which a papular itching rash had existed for two years. A hydatid cyst was discovered in the liver, and after operation the rash disappeared. The cyst was unruptured.

June 1st.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated:—

Monday, July 6th:

Anatomy and Physiology.—Frederick James Gay Blake and Frederick Stocks Topham, students of Yorkshire College, Leeds; Joseph Edward Judson and Gilbert Thomas Brundrett, Owens College, Manchester; Charles Sigismund Stolterfoth and Samuel Morris Green, University College, Liverpool; Percy Cecil Parker Ingram, University College of South Wales, Cardiff; Charles Herbert Welch, University College, Bristol; Horace Ebbage Utting and Louis Charles Southall Broughton, Mason College, Birmingham; Joseph Beard, Firth College, Sheffield; Walter Bernard Secretan, Guy's Hospital; Charles Percy Woodstock, Anderson's College, Glasgow; Godfrey Eustace Charles, Queen's College, Cork; Richard Alliott, Oxford University and St. Thomas's Hospital; and Rees William Rees, University College, London.

Anatomy only.—Frederick William Whyte, Queen's College, Belfast; and Edgar Whalley, Yorkshire College, Leeds.

Physiology only.—Arthur West Walker, Mason College, Birmingham; and Thomas McCarthy, Queen's College, Cork.

Seventeen gentlemen were referred to both subjects, four in anatomy only, and one in physiology only.

Tuesday, July 7th:

Anatomy and Physiology.—William Henry Randolph, Arthur Llewellyn Vaughan and Charles Richard Verling Brown, St. Bartholomew's Hospital; Howard Martin and Blenheim Stratford, Oxford University; John Thomas Dunston, Guy's Hospital; George Benjamin Armes Speirs and Willfred St. George Grantham-Hill, St. Mary's Hospital; Maurice Winzar Compton and Richard Ingram Cuming, St. Thomas's Hospital; Frank Coleman and Charlie Lees, Charing-cross Hospital; Arthur John Evans and Ernest Adolphus Edington, University College, London; Stanley Dodd, Westminster Hospital; and Edgerton Gray, Queen's College, Cork, and London Hospital.

Anatomy only.—Alexander Farrington and Arthur Hawkins, Cambridge University and St. Bartholomew's Hospital; Bernard Newmarch Molineux, Cambridge University and St. Thomas's Hospital; Penry Garnons Williams and Thomas Lithgow Braidwood, St. Thomas's Hospital; Edwin Hyde, St. George's Hospital and Cambridge University; Frank Cooper, Mason College, Birmingham; Major Byron Oliver, University College, London; and Robert Lendon Argles, St. Mary's Hospital.

Physiology only.—James Augustus Rooth, St. George's Hospital; John Stansfield Gayner, St. Bartholomew's Hospital; Charles Augustus Scott, Charing-cross Hospital; Edmund Clapperton Dean, University College, London; and Lee Danby Buxton Cogan, Guy's Hospital.

Ten gentlemen were referred in both subjects, two in Anatomy only, and six in Physiology only.

FOREIGN UNIVERSITY INTELLIGENCE.—*Geneva:* Dr. C. Poli has been recognised as *privat-docent* in Rhinology and Laryngology.—*Innsbruck:* Dr. Karl Ipsen has been promoted to an Extraordinary Professorship of Forensic Medicine, and Professor von Rokitansky has been elected Rector of the University during the coming academical year.—*Munich:* Dr. Gottlieb Port has been recognised as *privat-docent* in Odontology.—*Bonn:* Drs. K. Bohland and R. Thomsen have been granted the title of Professor.—*Berlin:* Professor Fürbringer has been offered the chair of Venereal Diseases connected with the Charité clinic, but he has decided to remain at the Friedrichshain Hospital.

WE regret to announce the death of Dr. Thomas Laverick Watkin of Durham, who passed away on June 24th at the age of eighty-one years. He became a Member of the Royal College of Surgeons of England in 1837, graduated as M.D. at Edinburgh University in 1839, and settled in Durham in 1842. Here he soon obtained a large practice and took an active part in the movement for the erection of the County Hospital; it was completed about 1853 and Dr. Watkin subsequently held the office of consulting physician for many years.

AT a general monthly meeting of the members of the Royal Institution, held on the 6th inst., Sir James Crichton-Browne, M.D. Edin., LL.D., F.R.S., Treasurer and Vice-President, presiding, the following were elected members: the Right Hon. Lord Windsor, Mr. Herbert Page, F.R.C.S. Eng., and Mr. Alfred Suart.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—Mr. T. Corkery, M.D., L.R.C.P. Irel., of Alfreton, Derbyshire, has been presented by the members of the Ambulance Class at Pinxton, composed of employés of the Midland Railway and Portland Colliery, with a silver cigarette case and match-box, appropriately inscribed, as a slight acknowledgment of his instructions on Ambulance Aid.—Mr. J. H. Wilkinson, L.R.C.P. Lond., M.R.C.S. Eng., of Dudley, has been the recipient of a handsome smoking cabinet from the members of the Railway Class of the Dudley Branch, St. John Ambulance Association; and Mr. Thomas Rhodes, L.R.C.P. Edin., M.R.C.S. Eng., of Dudley, has received from his class, also members of the same branch, an umbrella, in token, respectively, of their ambulance instruction.—Mr. S. T. D. Weston, L.R.C.P. Edin., M.R.C.S. Eng., of Handsworth, Staffordshire, has been presented by the members of the Ladies' Class of the Handsworth and Smethwick Centre of the St. John Ambulance Association with a valuable travelling bag and an illuminated address as a mark of appreciation for his services to the class. Also in connexion with this ambulance centre, Mr. C. R. Lunn, L.R.C.P. Lond., M.R.C.S. Eng., of Handsworth, has been presented with a handsome lamp for similar services as instructor.

THE DIFFUSION OF SMALL-POX.—The admissions of small-pox patients to the hospital ships from London sanitary areas were last week more numerous than in the week previously. In the three weeks ended June 27th the admissions had been 9, 18, and 6 respectively. Last week they increased again to 12, and the close of the week found 39 patients under treatment for the disease. One of the "upwards of a score of cases" removed from the Holloway district of Islington last week proved fatal, the deceased being an unvaccinated child of eight years who had been taken to the *Castalia* at Long Reach. In the very face of the serious localised outbreak which has just engaged the attention of the Islington sanitary officials the board of guardians of the union of that name have decided by 12 votes to 9 to allow the enforcement of the Vaccination Acts to remain in abeyance. The arguments brought forward by the friends of vaccination unlike those arraigned against the motion to enforce the statute were pertinent; but in defiance of the data quoted and the lesson of the past few weeks in their own domains the majority went against the carrying out of those very duties which they were elected to perform. At Gloucester the fresh cases of small-pox arising in the week ended July 2nd were 18 in number, exceeding the total of the previous week by 5. These raised the grand aggregate of cases in the present epidemic to 1983. There was one death from the disease in the week, the admissions to hospital were 9, and the discharges therefrom 20, and it is stated that the institution has now vacant beds sufficing to permit of every case being admitted. At the meeting of the guardians on Tuesday of the present week, it was stated that there had not been a single notification of small-pox for the past three days. Summonses last week occupied the bench at Gloucester with reference to the obstruction of officers of the sanitary authority in their efforts to secure the removal of cases of small-pox to hospital. In one instance the father of three children down with the disease refused to permit of their being taken to the hospital, and he was fined £1 and costs or fourteen days' imprisonment. The defendant, by his counsel, desired to bring forward evidence to show that the hospital was not properly administered, that beds were occupied by more than one case, and so on. The bench ruled against the defendant in this respect, but it is alleged that this is not the first complaint that has been made as to the way in which in the past the small-pox hospital at Gloucester has been administered. A case of the disease has been admitted to the Keighley and Bingley joint hospital from the former town.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Public Health Acts.

In the course of a debate in the House of Lords on Tuesday, June 30th, Lord Russell of Killowen, Lord Chief Justice of England, said that the subject of sewers and drains, and the responsibilities in connexion with them as a branch of the Public Health Acts, was in a most confused condition—so much so that he should have no difficulty in pointing out cases in the Queen's Bench division impossible to reconcile one with another. He suggested for the consideration of the Government whether the time had not arrived for putting into one Act, in consolidated form, the whole provisions which were to be found scattered through different Acts of Parliament, not always themselves easily reconciled, so that the law might be brought into a coherent and simple form, instead of being, as now, a fruitful source of litigation. The Earl of Morley, Chairman of Committees in the House of Lords, joined in this expression of opinion of the Lord Chief Justice, and it is to be hoped that something practical may issue from it.

Cocoa Butter.

The Chancellor of the Exchequer has prepared a Bill providing that for the future the product of the cocoa bean, usually known as cocoa butter, shall be subject to the same Customs duty as cocoa or chocolate. In the past this article, which is largely used in the manufacture of chocolate and is imported in considerable quantity, has escaped the duty.

Teaching University for London.

In the House of Lords on Monday, July 6th, the Bill of the Government with regard to the reconstitution of the University of London was explained and introduced by the Duke of Devonshire, President of the Council. The Bill follows the lines of the measure introduced in the late Parliament—that is to say, it proposes the appointment of a statutory commission to carry out the scheme, more or less completely, of Lord Cowper's commission for making the London University a teaching as well as an examining body. As the Duke of Devonshire explained, this Bill gives a somewhat wider discretion and larger powers to the statutory commission than did Lord Playfair's Bill of last year, for while the commissioners will be directed to proceed upon the proposals of Lord Cowper's commission they will also be directed to inquire into and have regard to the requirements of both the internal and external students. As his lordship further said, power of appeal to the Privy Council will be given to any body or institution concerned and power will also be reserved to either House of Parliament to address the Crown against the statutes or any part of the statutes framed by the statutory commission.

HOUSE OF COMMONS.

TUESDAY, JUNE 30TH.

Vaccination Prosecutions.

Mr. Logan asked the Secretary of State for the Home Department if he was aware that the clerk to the Justices of the Andover Petty Sessional Division was also Clerk to the Guardians of the Poor within the same district, and advised both bodies in regard to prosecutions for non-compliance with the Vaccination Law; whether such a combination was legal; and if he would, under the circumstances, cause the remission of the fines imposed on a number of defendants in vaccination cases heard at that Court on Friday last, and particularly that of a widow who was to be imprisoned for six days in default of payment of fine or goods to distrain upon.—Sir Matthew White Ridley: The Clerk to the Justices of the Andover Division is also, I am informed, the Clerk to the Guardians within the same district. The combination is, I believe, perfectly legal. The clerk is reported, however as saying in the newspaper extract which the hon. member was good enough to send me that he had not advised the guardians in regard to any of the cases. Costs only, not fines, were imposed in each case, and these I have no power to remit.

THURSDAY, JULY 2ND.

The Veterinary Department.

In reply to a question by Mr. Kearley Mr. Long said he was aware that the veterinary profession generally is in favour of the arrangement of business adopted prior to the retirement of Professor Brown at the end of the year 1893, but he could not admit that the reorganisation which then took place could properly be described as the suppression of the Veterinary Department, or that any real ground for complaint exists with regard to the status assigned to their veterinary officers. The status of those officers is identical with that usually given to the professional advisers of public departments, but he recognised that there has been some misunderstanding on the subject, and as he was most anxious to give full expression to their indebtedness to the veterinary profession he had arranged that the Veterinary Department should be given a separate place in the list of the departments of the Board, subject to the condition that the status of the other officers concerned is not thereby affected.

Explosions in Mines.

Sir Matthew White Ridley, Home Secretary, stated, in reply to Mr. John Ellis, that the number of lives lost in coal mines from explosions of various kinds had been in 1890, 319; in 1891, 76; in 1892, 146; in 1893, 175; in 1894, 329; in 1895, 76; and in the first six months of 1896, 169.

Explosions in Coal Mines Bill.

This Bill, which by the promise of the Home Secretary to withdraw the clauses with reference to check weighing and deductions has now become a measure solely for the protection of life, at this sitting was read a second time by the unanimous consent of the House and referred to the Standing Committee on Trade.

The Home Secretary, in moving the second reading, said that during the past twelve months there had been sad demonstration of the necessity for further regulations if possible to diminish risk and loss of life in coal mines. The principal difference between this Bill and the Bill brought in last year by his predecessor (Mr. Asquith) was that it did not propose the constitution of a central board. There was a proposal in the Bill of last year that after fiery and dusty mines had been certified as such there should be an appeal to a central board in London, and if a mine had been proved to be fiery and dusty it should be under special rules as to management, which should be the subject of arbitration under the general Act. The proposed central board had not proved popular either with owners or workmen, and was regarded as a cumbrous method, and therefore it was not to be found in the present Bill. What the Bill proposed was to give the Secretary of State certain powers to impose, amend, and modify special rules under the general Act, and greater power than he possessed at present with regard to lamps, explosives, and the mode of using them, the number of persons to be permitted to remain in the mine, watering or damping the mine and general precautions for the prevention of accidents.

Mr. Asquith delivered a strong speech in support of the Bill. He declared that it was impossible to exaggerate the urgency of the dangers with which it dealt and appealed to the House to carry the motion for the second reading with unanimity. It was not, he said, until the investigation of the Royal Commission was completed that the difference of opinion which had previously existed amongst experts as to how far coal dust was an effective cause of colliery explosions was finally set at rest. But since the completion of that Commission, amplified and extended in other countries as well as our own, he did not believe there was any difference of opinion worth considering at all on that point; and they were now coming rapidly round to the view that not only was coal dust an effective means, but was far more than any other means the cause of dangerous and disastrous explosions in our mines. The existing law—the Act of 1887—was wholly inadequate to deal with that particular form of danger, for the simple reason that at the time the Bill was prepared the attention of experts was directed to dangers arising from gas and falls of roof; and the danger of coal dust had not yet been accurately gauged. It appeared to him the moment the report of the Commission was presented, containing in an authentic form evidence to sustain those conclusions, that it was the duty of those responsible for the administration of the mining laws to invite the attention of Parliament to the matter and to place upon the Statute-book more effective safeguards for the lives and limbs of the mining population.

MONDAY, JULY 6TH.

Cholera in Egypt.

Replying to a question by Mr. Pierpoint Mr. Curzon said: In a memorandum annexed to Lord Cromer's Report on Egypt (Egypt, No. 1, 1896) Rogers Pasha, head of the Egyptian Sanitary Department, states (see p. 34) that it is difficult to say how Alexandria became infected with cholera, that the disease was certainly imported (see p. 35), and again (p. 36) that he has no doubt that the probability, if not the certainty, of the introduction of the epidemic by pilgrims will be fully established. The various projects for the Nile Reservoirs, including the Rayan scheme, were referred to a Technical Commission, the majority of which approved, with certain modifications the proposals of the Egyptian engineers for a dam and reservoir on the first cataract at Assouan. The general questions of water-supply, sanitation, and irrigation are dealt with in Lord Cromer's report at pages 14, 18, 29, 30, and 31.

Mr. Pierpoint asked the Under Secretary whether it was not the fact that the scheme for a dam at Assouan has been practically given up.

Mr. Curzon: It may have been temporarily suspended, but it is not within my knowledge that it has been given up.

TUESDAY, JULY 7TH.

The Duties of Relieving Officers.

In reply to a question put by Sir Walter Foster on this subject Mr. Chaplin said that he had directed that a statement should be prepared as to the duties of relieving officers for the information of those officers and the boards of guardians, and he proposed in a circular letter accompanying that statement to remind the guardians of the views of the Royal Commission on the Aged Poor as to the importance of the out-door relief granted being adequate to meet fully the extent of the destitution and other matters connected with the administration of relief.

Seizures of Meat in London.

Mr. Chaplin, replying to Mr. T. J. Farrell, said that he was informed that the largest seizure of unsound meat in the City of London in any one month was during the four weeks ending June 27th last. The greater portion of that meat was putrid and not necessarily diseased. He was told there was no such thing known as meat being voluntarily surrendered by the owners before being offered for sale, but that the salesmen to whom the meat was consigned frequently called the attention of the inspectors to meat after the same became unfit for food.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BOND, F. T., M.D. Lond., M.R.C.S., has been re-appointed Medical Officer of Health for the Chipping Sodbury Rural Sanitary District.

BRODIE, W. H., M.D. Edin., F.R.C.S., D.P.H., has been appointed Medical Officer for the Workhouse of the Battle Union.

BROWN, HADYN, L.R.C.P., L.R.C.S. Edin., has been appointed Clinical Assistant to the Chelsea Hospital for Women.

DATE, W. H., M.R.C.S., has been re-appointed Medical Officer of Health by the Culmstock Rural District Council.

DAVIES, THOMAS B. P., M.D. Lond., has been appointed House Surgeon to the Bulawayo Hospital.

DAY, E. J., M.R.C.S., has been re-appointed Medical Officer of Health by the Dorchester Town Council.

DELMEGE, L. E., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer for the Burton Sanitary District of the Kendal Union.

DENNY, CHAS. J., L.R.C.P. Irel., M.R.C.S., has been re-appointed Medical Officer of Health for the Hartley Wintney Urban Sanitary District.

DREAPER, R. H., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the No. 12 Sanitary District of the Ashton-under-Lyne Union.

DURRANT, T. A., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Market Harborough Urban Council.

ESKRIDGE, R. B., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Royston Urban District Council.

EVERS, C. J., M.D. Durh., M.R.C.S., has been re-appointed Medical Officer of Health for the Faversham Urban Sanitary District and to the Port Sanitary Authority.

GOLDSMITH, G. H., M.B. Lond., has been appointed House Surgeon to the Royal Westminster Ophthalmic Hospital.

GRAHAM, ARTHUR, L.R.C.P., L.R.C.S. Edin., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for No. 7 District of the Newmarket Union; also Certifying Factory Surgeon for Soham and Fordham.

HAYMES, H. E., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the Royal Berks Hospital, Reading.

HORSFALL, H., M.D. St. And., M.R.C.S., has been appointed Medical Officer for the Masham Sanitary District of the Leyburn Union.

JACOBSON, WALTER H. A., M.B., M.Ch., F.R.C.S., has been appointed Examiner in Anatomy for the Fellowship of the Royal College of Surgeons of England.

LITTLEJOHN, H. H., M.B., B.Sc. (Pub. Health), F.R.C.S. Edin., has been re-appointed Medical Officer of Health for Sheffield.

LUCAS, R. C., M.B. Lond., B.S., F.R.C.S., L.R.C.P., has been appointed Examiner in Anatomy for the Second Examination of the Royal College of Surgeons of England.

MCLAY, R., M.D. Glasg., has been appointed Medical Officer of Health by the Hornsea Urban District Council.

MEADOWS, R. T., M.D. Edin., D.P.H. Eng., has been appointed Medical Officer for the No. 4 Sanitary District of the St. Germans Union.

MICKLE, GEO., M.B., C.M. Aberd., has been appointed Medical Officer of Health by the Kirklington-cum-Upsland Urban District Council.

MILLETT, G. B., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health by the West Penwith Port Sanitary Authority.

PARTRIDGE, THOS., M.R.C.P. Irel., M.R.C.S., has been re-appointed Medical Officer of Health for the Stroud Rural and Urban Sanitary Districts.

PEPPER, H. W., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Royal Berks Hospital, Reading.

REED, WALTER HUGO, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Westbury (Wiltshire) and Whorwelsdown Rural Sanitary District.

REYNOLDS, F. M., M.B., C.M. Edin., has been re-appointed Medical Officer of Health by the Ottery St. Mary Urban District Council.

RIDLEY, WM. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer at the Gateshead Dispensary.

ROBERTS, L., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Newtown and Llanidloes Union.

RUSTON-HARRISON, G. H., M.B., C.M. Edin., has been appointed House Physician to the Royal Berks Hospital, Reading.

SANKEY, J. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Sixth Sanitary District of the Tunbridge Union, vice P. W. Streatfield, resigned.

SNADDEN, JAS., M.B., C.M. Edin., has been re-appointed Medical Officer of Health for the No. 1 Sanitary District of the Wortley Union.

STARLING, E. H., M.D. Lond., B.S., M.R.C.P., M.R.C.S., has been appointed Examiner in Physiology for the Fellowship of the Royal College of Surgeons of England.

STEVENS, THOS. G., M.D. Lond., B.S., F.R.C.S., L.R.C.P., has been appointed Examiner in Elementary Biology for the First Examination of the Royal College of Surgeons of England.

THOMSON, J. A. M., L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer of Health by the Bradford-on-Avon Rural District Council.

TONKIN, J. H., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Camborne Sanitary District of the Redruth Union.

TUKE, G. M., M.R.C.S., has been re-appointed Medical Officer of Health by the Hollingbourne Rural District Council.

TURNER, R. T., M.D., Ch.B. Vict., has been appointed Medical Officer of Health by the Nantwich Rural District Council.

VAWDERY, GEO., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Farnborough Urban District Council.

WAGSTAFF, FRANK ALEXANDER, M.R.C.S., L.R.C.P., has been appointed Surgeon to the Saffron Walden Hospital.

WALCOT, THOS., M.D. Edin., C.M., has been appointed Medical Officer of Health by the Frimley Urban District Council.

WOODFORDE, A. P., M.R.C.S., has been appointed Medical Officer of Health by the East Hampstead District Council.

WRIDE, F. G., L.K.Q.C.P. Irel., M.R.C.S., has been appointed Medical Officer of Health for the Cricklade and Wotton Bassett Rural Sanitary District, vice J. M. Kirkman.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238, Gray's-Inn-road, W.C.—House Surgeon.

CHILDREN'S HOSPITAL, Nottingham.—House Surgeon (non-resident) for six months. Salary at the rate of £100 per annum.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon for twelve months. Salary £30 per annum, with board, residence, and washing.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTER EYE INSTITUTION.—Assistant House Surgeon, for six months. Board, residence, and washing provided.

GLASGOW SAMARITAN HOSPITAL FOR WOMEN, Victoria-road, Glasgow.—Resident (lady) Clinical Assistant.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Surgeon, for six months. Salary £60 per annum, with board, lodging, and laundry provided in the hospital. Also Junior House Surgeon, for six months. Board, lodging, and laundry provided in the hospital.

ISLE OF WIGHT COUNTY ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and lodging, &c., but without alcohol. Applications to the Medical Superintendent, Whitecroft, near Newport, Isle of Wight.

JOINT COUNTIES ASYLUM, Abergavenny.—Junior Assistant Medical Officer. Salary £100 per annum, increasing by two yearly instalments of £25 to £150, with board, lodging, and washing.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—Junior Assistant Surgeon.

METROPOLITAN ASYLUMS BOARD.—Two Assistant Medical Officers, unmarried, at the Eastern Fever Hospital, Homerton, N.E. Salary £160 during the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance, and washing. Also an Assistant Medical Officer, unmarried, at the North-Eastern Fever Hospital, St. Ann's-road, N. Salary £160 during the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance, and washing. Applications to the Clerk of the Board, Norfolk House, Norfolk-street, Strand, W.C.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary at the rate of £30 per annum, with board, attendance, and washing.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Assistant Resident Medical Officer. Also Assistant Surgeon.

OWENS COLLEGE, Manchester.—Senior and Junior Demonstrator in Physiology. Stipends £150, rising to £200, and £100, rising to £150 respectively.

PARISH OF ST. GILES, Camberwell.—Third Assistant Medical Officer, of either sex, for the Infirmary at Havil-street, Camberwell, and the Workhouse at Gordon-road, Peckham; also for relief duty at the Constance-road Workhouse of the Parish, for one year. Salary £50, with apartments, board, and washing. Applications to the Clerk to the Guardians, Guardians' Offices, 29, Peckham-road, S.E.

ROYAL ALBERT HOSPITAL, DEVONSHIRE.—Assistant House Surgeon. Board, residence, and washing provided.

ROYAL EYE HOSPITAL, Southwark, or ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—House Surgeonship. Remuneration £20 per annum, with free board and lodging in the hospital.

UNIVERSITY OF ABERDEEN.—University Assistant in Physiology. Salary £150, rising by annual increments of £25 to £200. Applications to Professor MacWilliam.

WARNEFORD HOSPITAL, Leamington.—House Surgeon for six months. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BANKS.—On July 4th, at Lind-terrace, Ryde, the wife of Alfred Banks, F.R.C.S. Eng., D.P.H., of a daughter.

BOWER.—On July 8th, at Langton Lodge, Hendon, the wife of William Bower, M.B., of a son.

BROADBENT.—On July 4th, at Seymour-street, Portman-square, W., the wife of Dr. John F. H. Broadbent, of a daughter.

HARRISON.—On July 2nd, at Rossetti mansions, Chelsea, S.W., the wife of Dr. C. J. Harrison, of a daughter.

MESSITER.—On July 4th, at Charlton House, Dudley, Worcs., the wife of M. Arden Messiter, M.R.C.S., of a daughter.

MONTAGUE.—On July 2nd, the wife of A. J. Helm Montague, M.D., of M.B., 35, Potter-street, Worksop, of a son.

PINKERTON.—On July 2nd, at Craven-park, Harlesden, N.W., the wife of Robert L. Pinkerton, M.A., M.D., of a son.

MARRIAGES.

ATKINSON—NEWCOME.—On July 7th, at Long Clawson, by the Rev. Canon J. C. Atkinson, father of the bridegroom and Vicar of Danby, assisted by the Rev. J. S. Gardner, Vicar of the Parish, Guy Christopher Barton Atkinson, M.R.C.S., to Elizabeth Emma Newcome, eldest daughter of Chester Pern Newcome, Esq., and niece of the late W. W. Phipson, Esq., M.Inst.C.E.

GABRIEL—PIZA.—On June 24th, William Maurice Gabriel, M.R.C.S. and L.D.S. Eng., of Ludgate-hill and Porchester-terrace, to Leah, fourth daughter of the late Jacob Piza, of Warrington-crescent, W.

RANDALL—BRADBROOK.—On July 7th, at Emanuel Church, West Hampstead, by the Rev. Stanley Bradbrook, M.A., Metropolitan Secretary of the Church Pastoral Aid Society, brother of the bride, assisted by the Rev. E. N. Sharpe, M.A., Vicar, Ernest Bidgood Randall, M.D., of Romford-road, Forest-Gate, London, E., to Lydia, youngest daughter of Mrs. Bradbrook, of Boscombe, Hants.

DEATH.

STEVENS.—On July 5th, at Sway, near Lymington, Robert Stead Jones-Stevens, M.D., aged 70 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 9th, 1896.

Date.		Barometer reduced to Sea Level and 32° F	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min Temp	Rainfall	Remarks at 8.30 A.M.
July	3	29·89	W.	63	59	119	73	55	...	Cloudy
,,	4	30·00	N.W.	64	58	120	79	57	0·13	Cloudy
,,	5	30·07	W.	65	57	114	78	58	...	Cloudy
,,	6	30·14	S.W.	65	61	126	86	58	...	Hazy
,,	7	29·91	E.	70	62	130	86	62	...	Hazy
,,	8	29·86	S.W.	71	66	128	84	65	...	Fine
,,	9	29·89	S.W.	71	64	125	83	63	...	Fine

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

The Index for the first half-yearly volume for 1896 was given in the issue of June 27th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1896 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*., or post free 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"THE LATE MR. TOWERS SMITH."

To the Editors of THE LANCET.

SIRS,—Will you kindly add to Mr. Towers Smith's subscription list—Sir James Paget, Bart., £2 2*s*.

I am, Sirs, yours truly,

15, Harley-street, W, July 8th, 1896. JAMES STARTIN.

"DJAMBI."

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Price a reference to Section 320:3 of the "Medical Digest" and its appendix will show that Djambi is a styptic of well-known efficacy. It is the product of a fern—cibotium—and is much used by the natives of Java and elsewhere.

"A. L. R." will find several papers regarding scorpion venom in Section 490:5 of the same work. Doubtless Mr. King, of Portland-place, W., could supply living specimens.

I am, Sirs, yours truly,

South Hampstead, July 4th, 1896. RICHD. NEALE, M.D. Lond.

COD-GALL AS A SUBSTITUTE FOR COD-LIVER OIL.

To the Editors of THE LANCET.

SIRS,—The claim of cod-liver oil to be considered if not a specific, at least a powerful alterative, in diseases of the respiratory tract has long been recognised. Yet, owing to its unpalatability and the nausea attendant on its administration, it is the common experience of all that the cases which on theoretical grounds are selected as most suitable often prove least amenable to such treatment. These are for the most part cases characterised by a general wasting of the body and failure of its nutritive functions. How insuperably difficult it is to overcome this inherent propensity of the oil may be remarked when we notice how the ingenuity and art of the pharmacist have been strained to the utmost in devising ways and methods whereby it may be disguised if not destroyed. Its combinations with malt, the hypophosphites, &c., are so well known that allusion to them would be superfluous. It would likewise prove a useless reiteration to enumerate the many oils and fats that have been proposed as substitutes for it. However feasible such substitution as a theory may seem, yet in practice, for reasons which I subjoin, their use has not been attended by any marked success. Cod-liver oil has been proved by French investigators to owe its activity, not to any peculiarity in the nature and constitution of its oleaginous constituents, but to certain definite ante-mortem products of liver action, which not only promote the absorption of the oil, but also materially assist digestion and exert the well-known alterative action. It has likewise been proved by examination of frozen and prepared sections of a fresh liver that these physiologically active constituents of cod-liver oil are of biliary origin, for their distribution in sections so made bears a definite relation to the ramifications of biliary radicles, and not to the fat cells of the liver. I was induced thereby to utilise that biliary product of unchallengeable ante-mortem liver action—cod-gall—as a substitute for cod-liver oil, and I can now, after a trial of eighteen months, say that I have every reason to believe it an efficient, active, and palatable substitute for cod-liver oil, and one that deserves a trial. My usual method of employing it is by making a wine of cod-gall (vinum gadeo-morrhuine) by adding one ounce of fresh gall, along with two and a half drachms of extract of pancreas, to a pint of wine (sherry or port optionally), and after ten days filtering it through some cotton wool. I administer the wine so made in doses of one to four teaspoonfuls at or after meals four times a day. Trusting my *confrères* will give it a trial.

I am, Sirs, yours truly,

Rochester, June 24th, 1896. CLARENCE A. WRIGHT.

Mr. E. Blommart Miles.—We shall be happy to see our correspondent here and learn more particulars of the subject of his communication.

THE ESTIMATION OF SUGAR IN THE URINE.

To the Editors of THE LANCET.

SIRS,—At the end of the notes on Diabetes in the "Medical Annual" for 1893 Dr. Saundby says: "A simple little instrument for the estimation of sugar in the urine by means of fermentation has been designed by Dr. Edgar Gans. It is sold by Fiebig, Berlin." Can any of your readers inform me what advantage the instrument possesses over the two bottles?

I am, Sirs, yours truly,

July 7th, 1896. GLYCOSURIA.

Mr. R. Fisher.—Our advertisement columns may give our correspondent the information that he wants; if not he is advised to advertise in a local paper.

"AUTHORISED *v.* UNAUTHORISED MEDICAL SCHOOLS."

To the Editors of THE LANCET.

SIRS,—The letter of "Observer" in THE LANCET of July 4th conveyed an idea to my mind somewhat different to the point he makes with regard to established medical schools, so I looked at my diplomas to see if I could get any information, and quote from one of them: "..... Eique amplissimam potestatem medicinæ ubique gentium legendi, docendi, faciendi concessam aliaque omnia privilegia immunitates jura quæ hic aut usquam alibi ad doctoratus apicem evectis concedi solent." So much for the M.D. of Edinburgh. The diploma of Fellow of the Royal College of Surgeons of Edinburgh merely states that I am admitted to all the rights and privileges belonging to the Fellowship and does not enumerate them. From the M.D. diploma I gather that the right to teach and lecture, &c., is conferred by universities under their charter from the Crown. Hence it would seem that, in former times at least, teaching and lecturing were under the control of the Crown, which delegated the privileges to the universities, and gave them power to confer it on their graduates. If this view be correct the medical college referred to by "Observer" as being conducted by a man whose name is not to be found in the "Medical Directory," and presumably not on the "Medical Register," is in contravention of the rights of medical graduates and perhaps also of the law. I have an idea, rightly or wrongly, that very many medical men regard their degrees and diplomas as simply qualifications to practice and have no notion of any rights and privileges attached to them. Perhaps, Sirs, you or some of your readers will kindly let some legal and historical light in upon these subjects. In the meantime I would suggest that the privilege of teaching and lecturing conferred upon graduates may possibly be used as a weapon against quack lecturers and others concerning whom complaints are made from time to time in the medical journals.

I am, Sirs, yours truly,

July 6th, 1896. M.D.ED., F.R.C.S.ED.

THE USE OF THE LEFT ARM BY NURSES.

To the Editors of THE LANCET.

SIRS,—Can you or some of your readers explain why it is that women almost invariably carry their children on the left arm? I have noted that in almost every case this is so, and no one seems able to give me an explanation of the cause. On enquiry among dispensary patients I find them either unwilling or unable to account for this—to me—strange circumstance. I shall feel greatly favoured by your consideration of this matter. I am, Sirs, yours truly,

July 3rd, 1896. STUDENT OF MEDICINE.

*** Probably so as to have the right hand (most commonly used) free.—ED. L.

S. J.—The head should first be washed with soap and water to remove all grease. Then the following should be applied to the hair alone as far as possible: Hydrargyri perchloridi, gr. ii., aquæ destillatæ, ʒi.; to be followed by a lotion of sodæ hyposulph., ʒi., aquæ, ʒi. Obviously this should not be applied recklessly or salivation might be induced. We feel bound to add that we think our correspondent should strongly impress upon his patient that the adoption of such a course is extremely inadvisable save under quite exceptional circumstances. Of those circumstances S. J. is, of course, the best judge.

TREATMENT OF HAY FEVER.

To the Editors of THE LANCET.

SIRS,—In one of the earlier numbers of THE LANCET of this year I saw a suggestion by some medical man for the treatment of hay fever. I am unable to recall what the suggested treatment was, and would be much obliged if you or one of your readers could inform me on the point. I am, Sirs, yours truly,

Wilts, June 30th, 1896. P. W. C.

Jersey.—No, to both questions we fear.

THE FIRST FELLOWSHIP EXAMINATION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—I observe from your columns that the Royal College of Surgeons of England have declined to alter the examination in physiology for the first F.R.C.S., as requested by teachers of that subject throughout the country. I also see that the new examiners have been appointed, and I beg permission to ask their favourable consideration for one of two alternative courses. Will they before November next be good enough to read recent text-books on their subject or otherwise indicate the special sources of information they possess in it? At the recent examination a student, examined on the results of hemisection of the spinal cord, gave a correct answer according to the latest edition of Waller—an answer that was refused. The examiner insisted on a reply that would have been in accord with the teaching of Kirke ten years ago. Physiology is a difficult subject at the best, but if students have some guarantee that their answers will be accepted from the latest editions of text-books in vogue it will help somewhat to mitigate the very trying uncertainty of this examination. If a man knows his work he should pass; but this is not so at the Royal College of Surgeons of England. It is very desirable, too, that pure physiologists should be elected to these appointments and that the examination should be made more practical.—I am, Sirs, yours faithfully,

July 6th, 1896. ANOTHER CANDIDATE.

X.—Our correspondent takes the gloomiest view. His facts are, of course, correct, but he should do one thing—he should compare the lot of one of his order with that of many general practitioners.

"IMPORTANT IMPROVEMENTS IN THE APPLICATION OF THE 'X' RAYS TO MEDICINE."

THE Electrical Company, Ltd., of 122 and 124, Charing-cross-road, W.C., write that they extremely regret that they have been misled, and consequently that they misinformed us as to the price of the tube described in the article under the above heading which appeared in THE LANCET of July 4th. The sale price is fixed in this country at 20*s.* and not at 15*s.* as therein stated.

Dr. Edwards and Dr. Morris.—The General Medical Council have defined what they consider should be the scope of the unqualified assistant. It is understood that they do not object to unqualified assistants being employed by practitioners when resident in or near their employer's houses, but they must not control branch practices or dispensaries situated at a distance from their principal's house, and not under his immediate supervision.

"NEW MASTOID-ANTRUM GUIDE."

To the Editors of THE LANCET.

SIRS,—By some oversight the word "artery" crept in after the word "facial" in the description of the new mastoid antrum guide. It should, of course, have been "nerve."—I am, Sirs, yours faithfully,

Harley-street, W., July 7th, 1896. R. LAKE.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (13th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (14th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (15th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (16th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY (18th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

FRIDAY (17th).—BRITISH LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL ASSOCIATION (11, Chandos-st., Cavendish-sq., W.).—3 P.M. Cases by the President (Dr. G. Stoker), Dr. Barclay Baron, Mr. G. C. Wilkin, Dr. R. H. Woods, Dr. Milligan, &c. Specimens by Mr. Lake. Paper:—Dr. Pegler: Acute Hæmorrhagic Otitis Media with Notes of a Case. Discussion on Preliminary Tracheotomy in Thyrotomy for the Removal of Foreign Bodies in the Larynx, to be opened by the President; Mr. F. Marsh, Dr. D. Grant, Dr. Milligan and others will take part. The Annual Dinner of the Association will take place at the Langham Hotel at 7.30 P.M., after the meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY (15th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Dr. F. Semon: Laryngeal Paralysis in Tabes Dorsalis.

During the week marked copies of the following newspapers have been received:—*Elgin Courant, Manchester Courier, Bury Guardian, Carnarvon Herald, Oban Times, Halifax Guardian, Blackburn Standard, Derbyshire Advertiser, Rochdale Observer, Carlisle Express, East Anglian Daily Times, Newcastle Leader, Worcester Herald, Times of India, South Wales Daily News, Ashton-under-Lyne Reporter, Gravesend Standard, North Wales Chronicle, Pioneer Mail, Scotsman, Cheltenham Mercury, Sussex Daily News, Architect, Buchan Observer, Devon Gazette, Somerset County Herald, Leicester Post, Dundee Courier, Leeds Mercury, Builder, Sheffield Telegraph, Western Morning News, Llandudno Directory, Yorkshire Post, Optician, Morning, Bristol Mercury, Brighton Gazette, Citizen, Liverpool Daily Post, Hemel Hempstead Gazette, Dublin Daily Express, Midland Daily Telegraph, Worcester Journal, Weston-super-Mare Gazette, Ripley Advertiser, Boston Independent and Lincolnshire Advertiser, Local Government Chronicle, Reading Mercury, City Press, Weekly Free Press and Aberdeen Herald, Mining Journal, Hertfordshire Mercury, Widnes Weekly News, Derbyshire Courier, Wakefield Free Press, Grimsby News, Australasian Medical Gazette, Walsall Observer, Daily Chronicle, Kelso Mail, Mid-Surrey Gazette, Preston Herald, Bromley Journal, Daily Free Press (Aberdeen), Middlesex and Surrey Express, &c., &c.*

Communications, Letters, &c., have been received from—

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